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CONSUMERS' RESEARCH

Bulletin

November 1948

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CONSUMERS' RESEARCH

Vol. 23 • No. 5 **BULLETIN** November 1948

Off the Editor's Chest

THE WORLD TREND toward totalitarian or authoritarian government has inevitably had considerable influence on the attitude of the American citizen toward his federal government in Washington, D. C. Once the dominant concept of government in the United States was to keep it small, restrict its power and cost, and to regard it as a servant of the people, at most a referee "which shall restrain men from injuring one another." In recent years there has been a concerted effort on the part of a very persuasive and articulate group to sell the idea, particularly through magazine articles and the schools, that only the federal government has the wisdom, foresight, and concern for the social welfare needed to direct the economic, social, educational, even the religious activities of the United States. Some conception of the extent of this aggrandizement of federal power may be gained from the fact that whereas some 20 years ago the federal government [illegible] percent of the tax[illegible]" [illegible]s share in 1946 One journalist [illegible] *dollar earned* [illegible]overnment. At the present time, the average family pays out somewhat more money to support the activities of the federal government than it pays for its food!

There are encouraging signs that the popularity of reliance on an all-powerful but beneficent State is waning as our citizens have had an opportunity to see how poorly people fare as consumers under even so mild a form of state planning as the present Labor Government in Britain (mild, that is, as compared with the rigorous and relatively complete controls exercised in Stalinist Russia and in pre-war Germany under Hitler). Bureaucracy once entrenched, however, is difficult to dislodge, for it finds many ways of embarrassing and attacking those who seek to reduce personnel and expenditures, and the problem of cutting government bureaus down to size in this country will undoubtedly be with us for some years to come. The number of people employed in the government service is now, in peacetime, over two million, or over twice as many employees as were on the public payroll at the peak of federal expenditures during World War I.

One effective propaganda technique for maintaining public esteem for particular government agencies was strikingly brought to our attention not long ago when we received a telephone call from an engaging representative of a Hollywood motion picture company which had scheduled a semi-documentary film on the Food and Drug Administration, like "The Street With No Name," he said, a picture about the F.B.I. He particularly wanted suggestions of dramatic cases where the Food and Drug Administration had saved lives by its action against dangerous products, primarily in the cosmetic and drug field. In the course of the [illegible]ation, the question came up as to whether

(*Continued on page 24*)

Scientific and Technical Experts and Editors: F. J. Greenleaf, Charles L. Bernier, and Dwight C. Aten. [illegible]oyce, M. C. Phillips, Helen P. Alleman, A. R. [illegible]stants: Mary F. Roberts and B. Beam.

Symbols used to indicate sources of data and bases of ratings: A—reco[illegible]s of quality; AA—regarded as worthy of highest recommenda[illegible]tion; B—intermediate with respect to quality; C—not recommended on [illegible]cr—information from Consumers' Research's own tests or in[illegible]vestigations; **1, 2, 3**—relative prices, **1** being low, **3** high. Note that price [illegible]ompletely differentiated in CR's listings; **a quality judgment is independent of price**; 47, 48—year in which test was made or inform[illegible] organized by the staff of Consumers' Research.

It will be advantageous if you will, whenever possible, send prompt noti[illegible]ldress at least 5 weeks before it is to take effect, accompanying your notice with statement of your old address with name in full. At least [illegible]must be given in any case. This rule, however, regarding long advance notice does not apply to military personnel.

¶*CR will, of course, gladly change addresses for men and women in the servic[illegible]red by changes in station and other circumstances.*

★★★For a brief cumulative index of 1948 BULLETINS preceding this issu[illegible]

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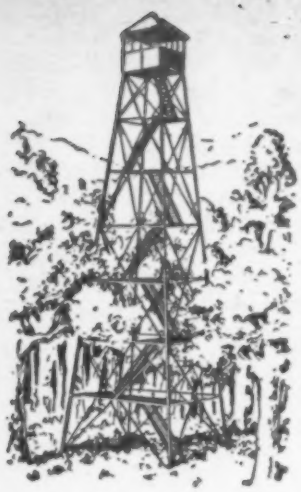


The Consumers' Observation Post

GLYCOL ANTI-FREEZE and tire chains are not too plentiful, and the Automobile Club of New York has urged motorists to get their supplies of both promptly. The Johnny-come-latelys who prefer a glycol anti-freeze will have to be satisfied with one of the "non-permanent" type, and may have to leave their cars in the garage when the roads are too slippery for bare tires.

* * *

EXAMINE YOUR TOOTHBRUSH carefully to see whether it is fit to use or whether it should be discarded. In a recent study, reported in the Journal of the American Dental Association, it was found that some 80 percent of the toothbrushes of the more than 1900 families participating in the survey project were no longer suitable for use. Approximately three-fourths of the unsatisfactory brushes were found to have bent, broken, or matted bristles and were no longer effective, or might cause injury to the dental tissues. The remainder were unsanitary because of caked dentrifrice and food debris at the base of the bristles.

* * *

TURKEYS will not be plentiful, and prices will be high this Thanksgiving, according to a prophecy by The Wall Street Journal. It seems that "poultryless Thursdays" last fall (the government's Luckman Committee, remember?) and the soaring prices of feed early in the year brought about a general slaughter of turkeys, both male and female. The natural result is that there haven't been as many turkey eggs for hatching as normally, and it is expected that there will be six million fewer turkeys this year than last. The foresighted family will place its Thanksgiving order early.

* * *

WHAT IS A "LIFETIME" when it applies to a guarantee? The National Better Business Bureau reports the case of a woman who purchased a tank in 1939 with a guarantee that if it failed within 20 years the company would supply a new one in exchange. When the tank failed in 1943, however, the company claimed that it no longer made such tanks and offered a small cash adjustment. It is usually unwise ever to regard such a guarantee as an important reason for making a particular purchase, for often the wording will be such as to be meaningless when the purchaser tries to collect, or the company may have gone out of business, or, as in the case just cited, may have discontinued the particular model or line, or lost interest in making good on its defects; the last two are very practical possibilities.

* * *

CERTAIN UNDERCOATS for nail lacquers have been withdrawn from sale by some manufacturers pending further research, according to an announcement by the Toilet Goods Association. It was high time, too, for a survey by Dr. James Mitchell of Presbyterian Hospital, Chicago, brought to light 270 cases of irritation involving chiefly Everon, but there were other brands including Adheron, Lastron, as well as base coats sold under the brand names of Peggy Newton, La Cross, and Dura-Gloss, and one put out by the Permanail Co., reports Tide magazine. It is predicted that the Food and Drug Administration will endeavor to discover just what the offending ingredient is that causes the difficulties which range from purplish-blue coloration of the fingernails to separation of the nails from the fingers altogether.

* * *

OLEOMARGARINE may now be sold colored yellow to resemble butter in several states, including Massachusetts. Although Massachusetts restaurants are required by law to notify their customers on the menu when margarine is served

instead of butter, the State Department of Public Health is having trouble with restaurants, which now assume that so long as the public doesn't know the difference it is permissible to pass colored margarine off as butter without any notification whatever. State officials have a job to do in this respect, and had better start taking their new responsibilities in connection with margarine seriously. They will need to undertake a few prosecutions in appropriate cases here and there to show restaurant operators and others that they do mean business.

* * *

WILL ASPIRIN IN COCA-COLA produce a "jag"?, inquires a physician writing to the Journal of the American Medical Association. The Journal thinks not, although it notes that caffeine (found in Coca-Cola, 1 grain or 60 mg. in the North, 2 grains or 120 mg. in the South) and acetylsalicylic acid (aspirin) are common ingredients of proprietary pain killers. The caffeine in a cup of coffee or a glass of Coca-Cola may help that morning headache, but the Journal points out that researchers have given relatively enormous doses of caffeine and aspirin to normal subjects and have not observed any change of mood as a result nor any state that might be characterized as intoxication.

* * *

WAR ON RATS may be dangerous to human beings. The new rat killer "1080" is highly toxic, not only to animals but to man as well, and for this reason it is sold only to experienced pest-control operators, and should be used only by them. There is no known antidote. Small amounts that may come in contact with food substances in warehouses and storerooms could have serious consequences, and the Food and Drug Administration inspectors are frankly worried at the careless way in which the new rodenticide is being used. Few persons apparently give full and careful heed to what they are told or read regarding the extreme precautions necessary in the case of very poisonous substances used in homes and in the operation of business enterprises.

* * *

CHICKEN LITTER on the floor of the coop is now found to be the source of an effective new substance which protects poultry against pernicious anemia. It is even going to be used for human beings if the trials now under way turn out to be successful. The discovery was made by poultry nutrition experts who discovered that hens were scratching for something more than stray grains of feed. From the chicken droppings, Lederle Laboratories Division of the American Cyanamid Co. has isolated the factor as an unidentified vitamin substance related to the vitamin B family.

* * *

THE SCHOOL LUNCH PROGRAM is considered a worthy outlet for those commodities which the farm price support program requires the U. S. Department of Agriculture to buy in order to keep the farmers' prices up. One Illinois resident, however, has complained to a Chicago paper that such commodities should not be wastefully distributed, and cites the case of a local school which in the last two weeks of the term received more raisins and potatoes (and in the previous year, cheese) than could possibly be consumed in that short space of time. Much could not be used even though the children took home ample supplies (which was not, of course, the proper purpose and use of the school lunch program).

* * *

TERMITE EXTERMINATORS can be almost as much of a problem as the insects themselves. The Magazine Pests tells the story of a woman in Ohio who paid $1100 to rid her home of termites. Later the company that did the initial work reported that additional treatments were required until the lady had paid over $2400, apparently unnecessarily. At any rate, when the case was reported to the Ohio Pest Control Operators Association, that organization took prompt legal action and was able to get her a refund of $1260 in cash. The trade journal reports that there are a number of such legitimate trade organizations throughout the country, and if all are as intelligently administered as the one in Ohio, consumers who have termite problems (or think they have) would be well advised to get in touch with the one in their state or metropolitan area if they have reason to suspect that they are being victimized.

(The continuation of this section is on page 29)

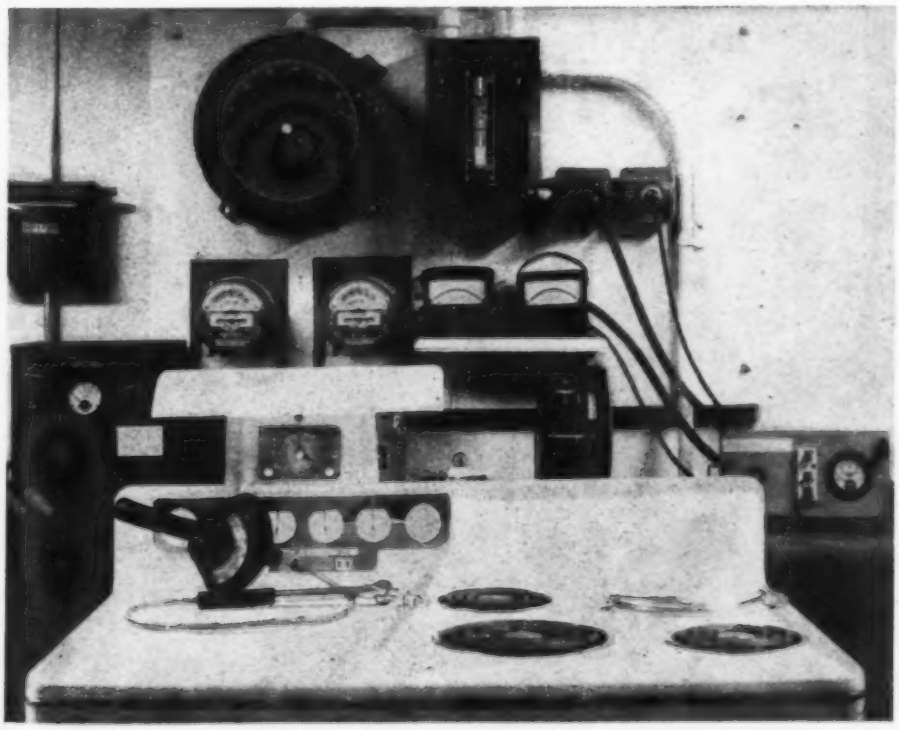
Electric Ranges

IT has been generally conceded, ever since electric stoves first came on the market, that electricity has outstanding advantages of convenience in cooking. In cooking with electricity very good temperature control is provided, and more even distribution of heat is possible than with any other type of fuel, and no gases are produced to vitiate the air of the kitchen. Slowness in heating as compared with gas, poor broiling in many cases, and high cost both for the stoves and installation have been recognized as disadvantages, however, and engineers working on electric ranges have had to make many improvements in the design of the original electric stoves, to put them into a position to compete in all essentials with gas stoves.

A comparison of the data accumulated in CR's recent gas stove study with the data on electric stoves in the work just completed indicates that the gap between the two types is being closed. The average time required for heating 5 lb. of water to boiling temperature in a standard pot on the giant burners of the gas stoves was about *9 minutes*. The same utensil was used to heat water on the large burners of the electric stoves reported on in this article; the average time calculated on the basis of the same weight of water was *11½ minutes*. The electric ovens tested heated up to desired temperatures considerably faster than the gas ovens did; the average time required for the electric ovens to reach the temperature corresponding to a 500° setting of the thermostat was 9.4 minutes, as against 15.6 minutes for gas. On prices, however, the story is very different, for the electric stoves ranged from $209 to $287, while prices of gas stoves tested by CR were about $127 to $255. However, only the most expensive gas stove ($255) had a time-controlled oven which would provide for cooking a meal in the housewife's absence[1], while all the electric stoves, except the *Universal Speedliner*, had this convenience feature, indicating that the gap in purchase price between the two types is narrowing, when stoves having the same features are considered. Installation costs are still much higher for electric than for gas stoves.

Operating costs for the two types of cooking stoves are also coming closer together. It has been estimated that the average family uses about 110 kilowatt-hours per month for electric cooking; this, at the rate of 3.5 cents per kwhr., now representing the national average charge for electricity for home use, would amount to about $46 per year for current to operate an electric range.

A big-city gas company estimates that in its service area the average family of four uses 1600 cu. ft. of gas per month; this volume of gas at $1.40 per thousand would cost $2.24 per month or $26.90 a year. The differential in operating cost of about $19 per year may be enough to deter some families from buying an electric stove even though its extra convenience and safety are really desired. In areas where the choice lies between *bottled* gas and electricity, and in cheap-electricity localities, the cost difference in the operation of the two types practically disappears, indeed may favor the electric stove.



Part of the set-up for testing electric ranges.

[1]In this connection, it might reasonably be argued that a gas-burning oven with automatic timing device constitutes a great hazard in that its malfunctioning in the absence of the housewife could easily result in a disastrous explosion, asphyxiation of a sleeping child, or a similar calamity.

Methods and Range of Testing

In testing the stoves discussed here, *Test Specifications for Household Electric Ranges*, published jointly by the Edison Electric Institute and the National Electrical Manufacturers Association (EEI Publication H-1, NEMA Publication No. 108, May 1940), was used. Some modifications were made in test procedures in order to obtain the data most significant to the consumer without undue expenditure of time.

The *speed* of bringing a given quanitity of water to a boil on the surface units (large and small) was determined, likewise the *energy input* to accomplish the operation, and *efficiency* of the burner.

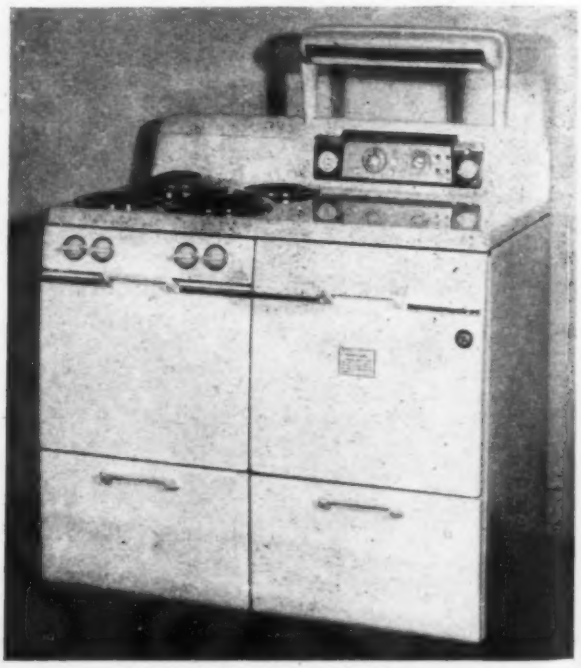
Deep-well cookers were checked for the same points and for operating characteristics at a low burner switch setting. The standard method of test for the deep-well cooker is to measure the time it takes to boil 2 qt. of water. This gives a basis of comparison of the effectiveness of the cookers but does not help much in evaluating the comparative usefulness of the cookers for the ordinary daily cooking of vegetables, pot-roasting meat, etc., where usually only a cup of water or less is used.

Temperature variation at different points in the oven was found to be satisfactorily small, a boon to good baking. Rate of heating, the wattage used both for preheating and for maintaining temperatures for one hour, accuracy of the thermostatic controls, and effectiveness of insulation were all checked.

In the older types of electric ranges, there has been some difficulty with broiling because of too low a rate of heat supply to the broiler unit, and, although this mostly applied, no doubt, to ranges with only one oven unit, it is true that even in two-unit ovens the broiler unit, for best results, had to be heated for several minutes before starting to broil the food. While cooking directions furnished with some of the present group of ranges advise preheating the broiler unit, the *General Electric* booklet makes the specific statement, "The General Electric Super Broiler heats so rapidly it is not

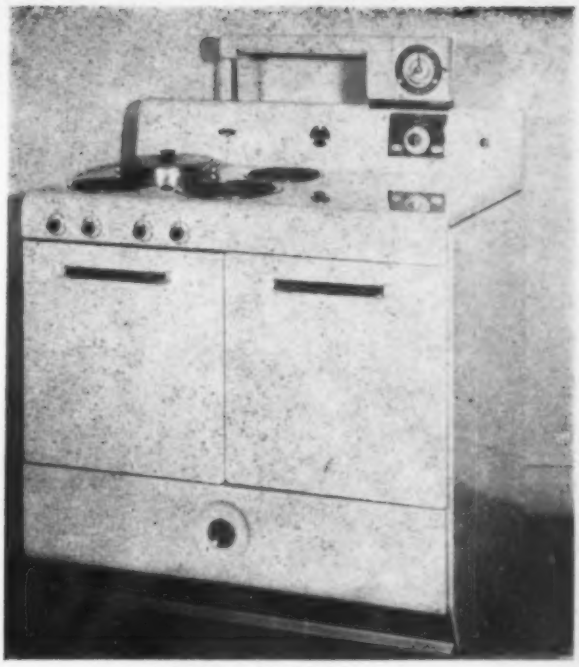
L & H, Model 8834

Kelvinator, Model ER-487



Kenmore, Model 101—944790

Universal Speedliner, Model RA—C7805



Frigidaire, Model RJ-40

necessary to preheat it," and the *Presteline* booklet says, "Do not preheat oven for broiling."

The stoves tested successfully withstood the standard current leakage and voltage breakdown tests. (Leakage current was very small in all cases.) A thorough engineering examination was made in order to evaluate quality of construction and design features.

General Electric, Model CD1—48A9

All of the stoves had two regular-sized surface units, one large surface unit, and a well-cooker, which were grouped on the left side of the cooking top unless otherwise noted. Several of the stoves had one or more pilot warning lights which served to show when one or more of the top units were operating, a very real convenience feature. Appliance outlets on half of the stoves were clock-controlled, a feature of doubtful value to the average homemaker. All but one of the stoves were equipped with interior oven lights (a desirable feature). A top-working light was provided on each range except the *Universal*.

Practically all ranges are equipped with encased surface heating units which have the actual heating element enclosed in a metal sheath but insulated electrically from it. All top-of-stove units in the present group were of the type in which the heating element is held within a flattened tube.

Four of the stoves had five-heat surface units and the five remaining had seven-heat units. The five-heat control unit is admittedly superior to the three-heat unit because it usually provides lower wattages, which will maintain boiling with decreased waste of electricity and correspondingly diminished loss of heat to the room. Theoretically the seven-heat control unit should give better low-heat control than the five-heat, but the designers of the stoves did not always obtain this result. Of the seven-heat type, the small units of *Kenmore*, *Kelvinator*, *Norge*, and *Universal* had a wattage range from 70 or 80 up to full heat in seven steps, but the lowest wattage on the *Presteline* was 110. The *L & H*, *General Electric*, and *Westinghouse*,

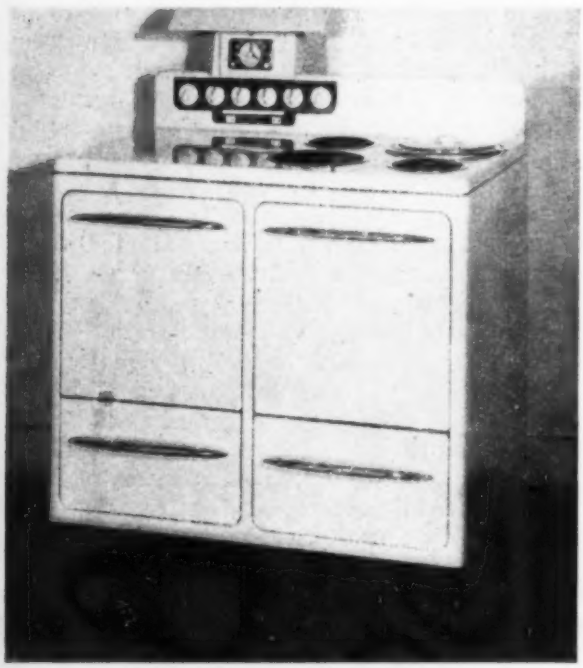
Norge, Model E-427

each with five heats, had a range of from 60 or 90 watts to full heat, which would make them potentially as economical in use as the seven-heat stoves; the *Frigidaire*, on the other hand, had its five heats distributed only from 145 watts to full heat. Apparently if the heat steps are properly engineered by the stove's designer, a five-heat unit can work out about as well in practice as a seven-heat one.

Oven and broiler heating units were all of the open-coil nichrome-wire type, except on the *General Electric* stove which had a *Calrod* heater for the oven. Except for the *L & H* and *Westinghouse*, the oven and broiler heating units could be easily removed for cleaning and replacement. In the *L & H*, while the baking unit cannot be removed, it can be swung up for cleaning, but the broiler unit is firmly fixed in place. In the *Westinghouse* range, the broiler unit is removable, but the lower or baking unit is fixed.

Heating units of all the deep-well cookers except the *Kenmore* were open-coil wires set in ceramic plates. The *Kenmore* had a ring-type *Chromalox* heating unit, which could be raised to the surface of the range for use as a fourth surface unit. For effective performance, it is necessary that the bottom surface of the well-cooker come into direct contact with the heating unit at the bottom of the well. In some of the stoves tested, there was sufficient space between heating element and cooker bottom to cause poor performance.

Differences in sizes of the ovens were small, the usable capacity ranging from 1.9 to 2.1 cubic feet. As to differences in performance, the best large surface unit brought 2 qt. of water to boiling in 8 minutes; the worst one required 11.2 minutes — a difference of 3.2 minutes, the second requiring 40% longer time. The large unit using the smallest energy input required 288 watt-hours for this job, while the unit using the most energy needed 384 watt-hours; with electricity at 3.5 cents per kilowatt-hour, the cost difference for bringing 2 qt. of



Westinghouse, Model D64—48

Presteline, Model S-100

water to a boil was about 1/3 of a cent (35 percent above the lower value), a not insignificant amount in the case of a stove given regular and frequent use in a large family. The slowest oven took 7.6 minutes to reach 400°F, the fastest 4.8 minutes, a difference of 2.8 minutes in time. To maintain the least efficient oven in the group at 500°F for one hour required 500 watt-hours per cubic foot of oven space; the best oven required only 341 watt-hours per cubic foot. The differences noted would be multiplied many times throughout a year and might add up to a significant amount in the household's annual cost of electricity. Nevertheless it should be borne in mind that the efficiency of the best stove made can be poorly utilized by careless or thoughtless management of its operation, and a relatively inefficient stove can give fairly economical cooking when used by a housekeeper who remembers to take advantage of all important means of saving current.

It is to be noted that some stoves excelled in some characteristics and not in all, and some stoves that were good in general were inefficient in some important respect.

There are a number of aids to economical electric cookery, a few of which it seems worth while to mention here.

1. Cook as many items as possible in the oven for any given meal.

2. In surface cooking, when foods reach a full boil, turn the switch to the lowest position which will maintain boiling.

3. When roasting, don't open the oven door to baste the meat; it isn't necessary and it wastes electricity.

4. Be sure to use flat-bottomed kettles which cover the heating unit itself, but do not use such large pans that they extend over the adjoining enamel stove surface, as this might possibly cause damage or cracking of the enamel coating. The instructions for the *Kenmore* range advised that if a large-diameter canner or other such vessel extending out over the enamel surface must be used, the homemaker should use a ring of asbestos paper cut to fit around the outer edge of the unit and wide enough to extend beyond the edge of the kettle.

At least one manufacturer says that one should learn to use the well-cooker and plan to cook as many things in it as practicable. Its use makes for economy.

Ratings are cr48.

A. Recommended

Kelvinator, Model ER-487 (Kelvinator Div., Nash-Kelvinator Corp., Detroit) $249.95. 7-heat units with switches located on rear panel. One pilot or warning light for all units (a good system). Three storage drawers. One appliance outlet (untimed). **Surface heating units:** Tubular type made by Wiegand. Cooking speed of both large and small units, as measured by time to boil test quantity of water, very good. Energy input (current consumption) to boil test kettle of water on large unit, considerably below average; on small unit, about average. Heating efficiency of large unit, 62%; of small, 66%. **Deep-well cooker:** Cooking speed, very good. Energy input (current consumption) to bring to boil, less than average. Heating efficiency, good. Operating characteristics at low-temperature setting, about average. **Oven:** Usable capacity, 2.05 cu. ft. Rate of heating, good. Energy (current consumption) used to preheat, about average. Energy (current consumption) used to maintain temperatures, greatest of stoves tested at 300°F setting; below average at the 500°F setting. Thermostat control, fair. Insulation, satisfactory. **Construction and design,** good.

Kenmore, Model 101 — 944790 (Sears, Roebuck & Co. retail store) $245. 7-heat units with switches located at front of range. Pilot warning light for each unit. Two storage drawers and 1 drop-door cabinet provided adequate storage space. One appliance outlet (untimed). **Surface heating units:** *Infrarod*. Cooking speed of both large and small units, about average. Energy input to large unit less than average; to small unit, about average. Heating efficiency of large unit, 62%; of small, 64%. **Deep-well cooker:** Had old-type *Chromalox* heating element (annular flat rings) which could be raised for use as surface unit — a good idea. Cooking speed, best of stoves tested, yet energy input required was much the lowest of all the cookers; used about one-half as many watt-hours as the least effective tested. Efficiency, 67%, best of cookers tested. Operating charactistics at low-temperature setting, poor. **Oven:** Usable volume, 2.1 cu. ft. Rate of heating, average. Energy used to preheat, least of any of the stoves tested at 300° and 400°, considerably below average at 500°F; energy used to maintain temperatures for one hour, about average. Thermostat control, best of those tested. Insulation, satisfactory, except on side, where outside surface temperature after one hour's operation at 500° exceeded 150°F (a commonly accepted limit for areas likely to be touched). **Construction and design,** good.

L & H, Model 8834 (A. J. Lindeman & Hoverson Co., Milwaukee 7) $209. 5-heat units with switches located on rear panel. Storage cabinet. One appliance outlet (timed). **Surface heating units:** *L & H* tubular but with wider flattened surface than others of this type. Cooking speed of large unit, very good; of small unit, about average. Energy input to both units, less than average. Heating efficiency of large unit, 62%, second best of stoves tested; of small unit, 67%. **Deep-well cooker:** Cooking speed, poor. Energy input, less than average. Efficiency, good. Operating characteristics at low temperature settings, fair. **Oven:** Usable volume, 1.95 cu. ft.; no light. Rate of heating, average. Energy used to preheat and energy consumption in one hour's operation, less than average. Thermostat control, satisfactory. Insulation, satisfactory except on door, where surface temperature reached the high value of 185°. **Construction and design:** Fairly good; the lower price of this stove appeared to be reflected in somewhat poorer finish in details. Fuses not readily accessible for replacement. Switches are unmarked as to which units they control.

Universal Speedliner, Model RA—C7805 (Landers, Frary & Clark, New Britain, Conn.) $254.95. 7-heat units with

switches located on back panel. One pilot warning light for all units. One storage drawer, and one warming oven which can be used for storing serving dishes, dinner plates, etc., which require warming before use. One appliance outlet. No timing device and no top-working light. **Surface heating units:** Wide flattened tubular type similar to *L & H*. Cooking speed of large unit, best of those tested; of small unit, about average. Energy input to large unit, least of stoves tested (corresponding to highest efficiency in use of current); to small unit, somewhat less than average. Heating efficiency of large unit, 69%, best of stoves tested; of small unit, 64%. **Deep-well cooker:** Cooking speed, poor. Energy input about average. Efficiency, good. Operating characteristics at low-temperature setting, fairly good. **Oven:** Usable volume, 1.9 cu. ft. Rate of heating, second fastest of stoves tested at 300° setting; fastest at both 400° and 500°. Energy used to preheat, considerably below average at all three settings, the least of stoves tested, at 500°; energy consumption in one hour's operation, somewhat less than average. Thermostat control, fair. Insulation, satisfactory except on door. **Construction and design,** good. This was the only stove tested which had a warming compartment. The appliance fuse was located on inside rear of stove, under surface burners, hard to find without referring to instruction book. All-around operating characteristics of this stove were judged the best of those tested.

B. Intermediate

Frigidaire, Model RJ-40 (General Motors Corp., Frigidaire Div., Dayton, Ohio) $249.75. 5-heat units with switches located on front of range. One pilot light for all units (good). Two large storage drawers. One appliance outlet (untimed). **Surface heating units:** *Radiantube*. Cooking speed of large unit, poor; of small unit, about average. Energy input to both types of units, greatest of stoves tested and much above the average. Heating efficiency, 52% for large unit and 59% for small unit, both the poorest of stoves tested. **Deep-well cooker:** Cooking speed, poor. Energy input less than average. Efficiency, good. Operation at low temperature setting, best of stoves tested. **Oven:** Usable capacity, 2.05 cu. ft. Rate of heating, average. Energy used to preheat, about average at 300°F and 400°F; less than average at 500°F. Energy used to maintain temperatures, much below average and least of stoves tested, at 500°. Thermostat control, fairly good. Insulation, satisfactory. **Construction and design:** Good, except that one storage drawer extends the full width of range and is somewhat unwieldy.

General Electric, Model CD1 — 48A9 (General Electric Co., Bridgeport, Conn.) $249.75. 5-heat units with switches located on back panel. Three storage drawers. One timed appliance outlet and one untimed. **Surface heating units:** *Calrod*. Cooking speed of both large and small units, slowest of stoves tested. Energy input to both types of units, about average. Heating efficiency of large unit, 59%; of small unit, 61 percent. **Deep-well cooker:** Cooking speed, very good; energy input, much less than average. Efficiency, good. Operating characteristics at low temperature setting, very good. **Oven:** *Calrod* unit. Usable volume, 2.05 cu. ft. Rate of heating, poor; energy used to preheat, much less than average; energy used to maintain temperatures, much less than average. Thermostat control, good. Insulation, satisfactory, except on door where surface temperature somewhat exceeded accepted limit. **Construction and design,** good.

C. Not Recommended

Norge, Model E-427 (Norge Div., Borg-Warner Corp., Detroit) $249.50. 7-heat units with switches located on front of stove. One pilot warning light for each unit. Three storage drawers. One appliance outlet (untimed). **Surface heating units:** Cooking speed of large unit, about average; of small unit, better than average. Energy input to both units, about average. Heating efficiency of large unit, 59%; of small unit, about 70%. **Deep-well cooker:** Cooking speed, poor. Energy input, largest of those tested. Efficiency, 33%, relatively very poor. Operating characteristics at low temperature setting, poor, because bottom of well and heating unit were not in contact. Otherwise would have warranted a *B* rating. **Oven:** Usable capacity, 2 cu. ft. Rate of heating, good. Energy used to preheat, about average on all three settings. Energy used to maintain temperatures, lowest of those tested at 300°; more than average at 500°. Thermostat control, rather poor; the average temperatures maintained were satisfactory but deviations from the setting were largest of the stoves tested. Insulation, satisfactory, except on door, where temperature exceeded accepted limit. **Construction and design,** fair.

Presteline, Model S-100 (Pressed Steel Car Co., Inc., Domestic Appliance Div., Chicago) $286.85. Well-cooker and surface units arranged in row at rear of range top. 7-heat units with switches located at front. One pilot warning light for all units. Cabinet and drawer storage space, very well arranged. One appliance outlet (timed). **Surface heating units:** *Chromalox* tubular. Cooking speed of large unit, about average; of small unit, best of stoves tested. Energy input to large unit, about average; to small unit, least of those tested. Heating efficiency of large unit, 58%; of small unit, 72%, best of those tested. **Deep-well cooker:** Cooking speed, slowest of those tested. Energy input, much above average (bottom of cooker did not touch the heating unit). Efficiency, poor. Operating characteristics at low temperature setting, fairly good. Only cooker tested which was time controlled. **Oven:** Usable capacity, 2.1 cu. ft. Rate of heating, average. Energy used to preheat, far above average and greatest of stoves tested at all three settings. Energy used to maintain temperatures, about average at 300° but highest of stoves tested at 500°. Thermostatic control, fair. Insulation, satisfactory. **Construction and design,** good.

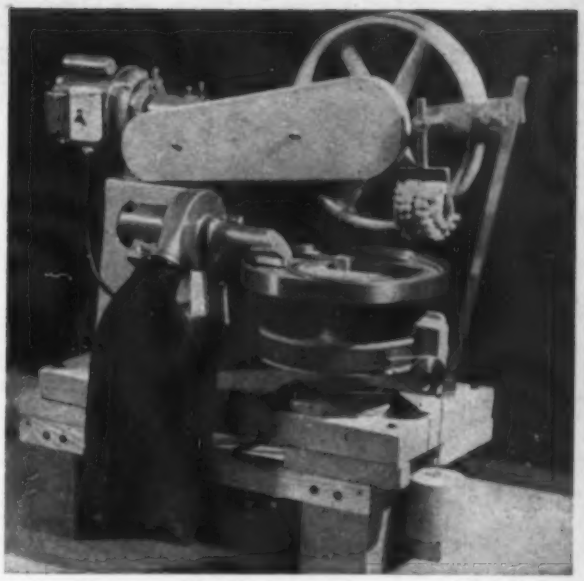
Westinghouse, Model D64 — 48 (Westinghouse Electric Corp., Mansfield, Ohio) $249.95. Surface units and well-cooker grouped on right. 5-heat units with switches located on back panel. Three storage drawers. One appliance outlet (timed). **Surface heating units:** *Corox*. Cooking speed of both large and small units, considerably below average. Energy input to both units, about average. Heating efficiency of large unit, 57%; of small unit, 65%. **Deep-well cooker:** Cooking speed, poor. Energy input, much above average. Efficiency, 40%, relatively poor. Operating characteristics at low temperature setting, poor; bottom of cooker does not touch heating unit. **Oven:** Usable capacity, 2.1 cu. ft. Rate of heating, slowest of stoves tested on all three settings. Energy used to preheat, much above average and next to the largest of stoves tested. Energy used to maintain temperatures, considerably above average. Thermostat control, satisfactory. Insulation, satisfactory except on door where average outside surface temperature exceeded 150°F. **Construction and design,** good. Fuses not readily accessible for replacement.

Men's Shoes

A RECENT release of the National Shoe Manufacturers Association reported that the per capita consumption of men's leather footwear, excluding house slippers, has slumped by 25 percent in comparison with ten years ago. The Association claimed that consumption declined for only one reason, that "Men's shoes don't wear out."

That would be pleasant news indeed, if it were true, but the story unfortunately does not agree with statements made by representatives of the shoe industry (including the Shoe Manufacturers Association) at hearings of the Senate's Committee on Agriculture this spring. *Present high prices* are forcing people to buy fewer shoes, they said. The average retail price for a pair of shoes today is $7.25, whereas before the war the average was $3.10. In short, average prices for shoes have more than doubled, as the average male consumer who must make the old pair do for a while longer well knows.

In purchasing samples for this test, CR decided to limit purchases to shoes priced at around $15 and less. This price limitation meant that some widely distributed brands were not tested, because they were not then being marketed in the chosen price range (at least in the areas where purchases were made); on this account, "secondary" brands of a manufacturer were purchased in some cases. In one store, the "cheap" shoe priced at $15.95 was obtained from the clerk only after some difficulty, since that shoe was not kept in the regular stock, but in the basement.



Abrasion tester for soles of shoes designed by E. L. Wallace of National Bureau of Standards.

Interest in increasing the wear of sole leather was given great impetus during the war because of the tremendous needs of the armed services. A series of tests made by the National Bureau of Standards, reported in 1945 on samples of sole leather submitted by 17 domestic tanners and three South American firms, produced valuable information. Results of laboratory tests were checked by actual wear tests in service of about 500 pairs of shoes most of which were worn by officer candidates at Camp Lee, Va. The Bureau's findings at the conclusion of these careful tests were briefly as follows: There are only small differences in wearing quality between the various commercial tannages; the gap between the best and the worst was only 16 percent. It is possible to increase the wear obtainable from a given piece of leather by a

Freeman, Master Fitters, No. 614 M7

Walk-Over Standish, No. 03830

Bostonians Challenger, No. 6726

Florsheim, No. 8S-3047

Nettleton Foote-Mates, No. 451

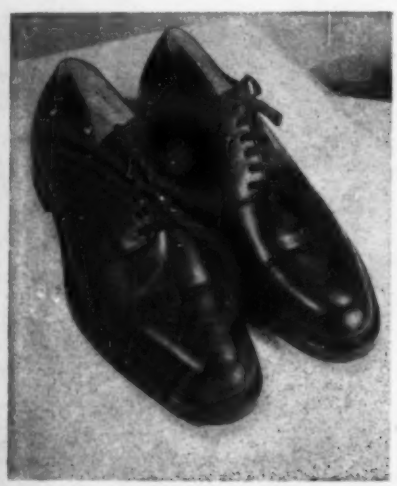
Nunn-Bush, Ankle Fashioned, No. 2125

small amount (about 5 percent) by subjecting it to additional compression treatment in the factory. South American leathers are about equal to domestic leathers in wearing quality.

Most foot ills are the results of poor shoe fitting and can be avoided by observing a few simple rules when buying. Shoes must be long enough when purchased; they will spread in width with wear but cannot increase significantly in length; a half inch (more if toes of the shoes are pointed) should be allowed beyond the toes to assure sufficient length. The joint of the big toe should come at the rounding-in of the sole on the inside edge near the instep. No pressure should be exerted by the shoe vamp on the top of the foot just back of the toes. Heels should fit snugly to avoid rubbing blisters on the skin. Edges of the quarters should not meet when the shoe is laced; neither should there be such a gap between them that the laces cause pressure on the instep.

The introduction during the last few years of several new impermeable compounded materials as substitutes for leather in the manufacture of shoe soles has led to an investigation of their relative merits as compared with leather. In one series of studies conducted by a well-known podiatrist and made available to CR through the Podiatry Society of the State of New York, it seems adequately established that the characteristics of leather make it still the most healthful material available for use in the manufacture of shoes.

In CR's tests, the shoes were dissected to determine construction details (including type of shank used, materials used in counter, linings, etc.), measurements were made of sole resilience, tear strength of the leather used in the uppers, stitch tear resistance, heel wear resistance, and breaking strength of the leather. Abrasion resistance tests of the soles were made on a Bureau of Standards type leather wear testing machine.



Regal, No. S4255

Thom McAn, Big Four, No. JG 141

Douglas Gold Cup, No. P 4563

Roblee Arch-Elator, No. B601

Details of construction which entered into the overall ratings were type of counter, linings, reinforcings, heel base, material of which shank pieces were made, and kind of thread. When heels were of rubber, determination was made of the tendency of the heels to mark the floor.

The style trend in men's shoes today appears to be toward "massive" soles. The buyer will do well to scrutinize such soles with care, for the test showed that they were very often massive in appearance rather than reality; some consisted of a thin leather sole with a heavy paper midsole. The *Nettleton* shoes tested had midsoles of a rubber-like material, which is desirable from the standpoint of increased waterproofing effect but to some degree introduces the disadvantage already referred to of not being permeable to air.

A qualified orthopedic specialist examined the shoes and rated them from the orthopedic standpoint. As they were designed for style and appearance rather than for comfort and foot health, none of the shoes tested were found to have a straight inner line, long judged a basic rquirement for shoes of good orthopedic design, and none of them had anywhere near enough toe room for the normal foot. No shoe which was judged less than fair orthopedically received higher than a *B-Intermediate* rating.

All the shoes tested were of tan color and were bal-type oxfords unless otherwise noted. The bal type is judged orthopedically less desirable than the blucher because it gives less freedom of adjustment to foot shape and movement. It is to be noted that *A* ratings do not imply shoes of the most desirable type from the standpoint of orthopedic quality. Counters were of paper unless otherwise indicated. Wood was considered the least desirable shank material. All the rubber heels tested were found to mark the floor to some extent; hence, this characteristic was noted only where marking was judged to be particularly bad. Ratings are cr48.

A. Recommended

Freeman, Master Fitters, No. 614 M7 Combination Last (Freeman Shoe Corp., Beloit, Wis.) $9.95. Over-all rating based on the quality of materials and performance of the upper and sole and various construction details, fairly good. Quality of sole, good. Heel, leather, of good quality. Shape of shoe and toe judged fair.

Walk-Over Standish, No. 03830 (Geo. E. Keith Co., Brockton, Mass.) $11.95. Blucher. Over-all rating, fairly good. Quality of sole, average. Heel, leather, with very good resistance to wear. Would receive a *B* rating for those users who cannot wear shoes with uppers of quite thick leather.

B. Intermediate

Bostonians Challenger, No. 6726 (Commonwealth Shoe & Leather Co., Whitman, Mass.) $12.95. Over-all rating, fairly good. Quality of sole, fair. Heel, rubber, of below average wear resistance. Shape of shoe and toe judged poor.

Florsheim, No. 8S-3047 (Florsheim Shoe Co., Chicago) $15.95. Over-all rating, good. Quality of sole, average. Heel, rubber, of below average wear resistance. Counter, leather. Shape judged least satisfactory of all shoes tested; toe height, poor.

Nettleton Foote-Mates, No. 451 (A. E. Nettleton Co., Syracuse) $10.95. Over-all rating, fair. Quality of sole, poor. Heel, leather and *Neolite*. Shape of shoe and toe, fair. Would receive a *C* rating for those users who cannot comfortably wear shoes with quite thick leather uppers.

Nunn-Bush, Ankle Fashioned, No. 2125 (Nunn, Bush Shoe Co., Milwaukee) $15.95. Over-all rating, good. Quality of sole, about average. Heel, rubber, of high wear resistance. Counter, leather. Shape of shoe and toe judged poor; toe height, good.

Regal, No. S4255 (Regal Shoe Co., Whitman, Mass.) $9.15. Blucher. Over-all rating, fairly good. Quality of sole, fairly good. Heel, rubber, of above average wear resistance. Shape of shoe and toe, poor.

Thom McAn, Big Four, No. JG 141 (Melville Shoe Corp., 25 W. 23rd, N.Y.C.) $6.65. Blucher. Over-all rating, fair. Quality of sole, very good. Heel, rubber, with poor wear resistance; marked floor considerably. Shape of shoe and toe judged fair.

C. Not Recommended

Douglas Gold Cup, No. P 4563 (W. L. Douglas Shoe Co., Brockton, Mass.) $9.95. Blucher. Over-all rating, poor. Quality of sole, poor. Heel, rubber, of average wear resistance. Shape of shoe and toe judged fair.

Roblee Arch-Elator, No. B601 (Brown Shoe Co., St. Louis) $11.95. Over-all rating, fair. Quality of sole, very good. Heel, rubber, with high wear resistance. Shape of shoe and toe judged poor. Would have received a *B* rating, but had a leather pad at the instep, which is undesirable for normal feet.

Combination Storm Sash and Screens

STORM sash-screen combinations are available in a wide variety of designs and materials, and are manufactured by a large number of companies for both national and local distribution.

Materials of Construction

Wood sash are widely sold because of their comparatively low cost and the fact that many mills and small woodworking shops are equipped to make them. Wood combination sash offer advantages over conventional separate storm sash and screens, but are not as convenient as the combination type made of metal, chiefly because the unwanted sections when made of wood must be removed for storage, where they occupy nearly as much space as full sash, and the necessary inclusion of frames for the permanent mounting and the insets cuts down the screen and light area of the window. Wood does have the advantage that it can be painted to match the house but the further disadvantage of requiring repeated painting and maintenance.

Steel sash, properly made, is very satisfactory, with the one disadvantage that it must be kept painted at all times to avoid objectionable rust, even when the base metal has been factory-treated with a protective coating, such as galvanizing.

Bronze is probably the most durable of all of the materials, but is also the most expensive. Under certain atmospheric conditions, as when there is even a trace of acid in the air, bronze may "bleed" to discolor the surrounding woodwork. This can be prevented by periodically coating the metal with clear lacquer.

Aluminum, particularly in heavy or extruded forms, is very rapidly becoming the most popular. However, aluminum has the disadvantage that it is very susceptible to the action of alkalis or salts. As a result a few of the manufacturers are giving their sash such protective coatings as lacquer, and others are being so conservative as to refuse orders at the seashore, pending more accurate knowledge of durability. Unfortunately, however, these precautions are in the minority as seven out of eleven distributors in the Philadelphia area blandly stated that they would install aluminum sash anywhere. A few are relying on the "superior resistance" of "special alloys" of aluminum. However, as none of the distributors interviewed seemed to have had any adequate seashore experience, CR will not at this time recommend aluminum sash for shore use unless: (1) it is adequately covered with a protective coat such as lacquer when sold; (2) unless the manufacturer will guarantee, in writing, against pitting of the sash for a reasonable length of time. As aluminum screen wire is difficult to cover properly with lacquer, it is not recommended by CR for use near the seashore or in a tropical climate. All but one of the manufacturers and distributors investigated is avoiding the use of bronze wire in aluminum frames because of the likelihood of electrolytic action between the two dissimilar metals.

Types of Operation

Wood sash are almost invariably constructed with insets or removable and interchangeable frames consisting of two half-length screens and two half-length storm sash.

While there are various types of metal sash, a kind that is very rapidly becoming standard through popular demand contains an upper and lower pane of storm sash which can be raised or lowered from the bottom or top for ventilation exactly like the conventional double-sash windows. Both sash are removable, usually, and preferably, from the inside, for cleaning or storage. In the summer the lower sash is merely raised to the top and a screen sash inserted in its place at the bottom; thus with this type, only the half-length screens have to be stored.

Several variations of this operation are available. In some models the lower storm sash can be raised a fixed amount from the bottom but the upper sash cannot be lowered from the top; these lack the flexibility of the type already described. In another style, the screen is a needed part of construction and must be left in place in front of the storm sash all winter; this has the disadvantage of cutting down the winter light.

In the listings that follow this article it can be assumed that the models mentioned are of the standard two-movable-glass-sash type and one half-window-size screen with "in place" storage for one of the glass sash unless otherwise noted.

Installation Precautions

Storm sash to be of the most value in saving fuel must fit tightly enough to exclude air infiltration around and between the storm and window sash. The value of storm sash depends chiefly upon its ability to entrain a "dead" air space between the glass surfaces. (Any louvers provided for ventilation

or removal of frost film must be closed to obtain good insulation.)

Most of the well-designed windows are made up from field measurements so that the glass size in the storm sash will be the same as in the window. With this construction, the edges of the glass on the two should be equidistant from the edges of the opening, and the center strips should coincide. Some models, however, are taken from stock to the "nearest size" and adjusted as closely as possible in the field. This is considered much less desirable though it might be tolerated if prices were reduced to correspond, as they appear not to be.

Other points to consider in buying storm-sash combinations are rigidity of construction (avoid flimsy frames), ease of replacement of glass and screen insets (make the salesman prove that this is not a factory or shop job), and convenience of operation (as the salesman may become very dexterous with the most complicated insets, be sure that *you* can change the sections easily).

Advantages of Storm Sash

The technical advantages of storm sash include a material reduction of the heat lost through the windows with a saving of as much as 20 percent of fuel; increased comfort, especially when sitting near the windows; a reduction of street noises; and a great reduction of condensation on the windows in all but the most severe weather.

In the listings which follow, prices, except as noted, are for sash having 26 x 48 inch glass area and include two half-storm-sash and one half-screen.

Ratings are cr48.

A. Recommended

Ace (Ace Storm Window Co., 2908 Glenwood Ave., Youngstown 7, Ohio) $26.90 installed. Extruded aluminum frames, aluminum screens, custom-built to measure.

Alsco (Weatherguard Corp., 2208 Chestnut St., Philadelphia 3) $26 installed. "Custom-measured," extruded aluminum, interlocking sash. Installed with adjustable channel to allow for irregularities in window measurements.

Eagle-Picher (Eagle-Picher Co., 1946 American Bldg., Cincinnati 1) $25 installed. All aluminum, weather-tight seal, narrow frames. Clips are provided on inside of upper sash for storage of unused frames. It is felt, however, that it would be better to remove the screen to separate storage so as to obtain full light in the winter.

Ee-Ze-Do (Smalley Products Co., 30 Hynes Ave., Groton, Conn.) Approximately $17 for 3 ft. x 4 ft. window opening. Extruded aluminum frame, double-sash type, with plastic *Lumite* screening. Screen and storm sash must be removed when changed.

Hunter (All-Weather Products Co., 5521 Wayne Ave., Philadelphia 44) $26.25 installed. All aluminum with very desirable lacquered finish. All sash fits in tongue-and-groove joints, insuring tightness in all wind conditions. Both sash fully adjustable to any position for ventilation. Feature for storing sash is available at $1.50 extra per window, which makes it unnecessary to remove either screen or glass panel for seasonal storage. Metal interlock between the two sash minimizes air leakage at this point.

Kane (Kane Mfg. Corp., Kane, Pa.) $27.20 installed (in aluminum). Custom-built of steel, bronze, or aluminum as desired. Well constructed with guide channels permanently fastened to the house. Adjustment for ventilation limited to opening bottom sash about 3 inches.

Kaufmann (Kaufmann Corp., 17210 Gable St., Detroit 12) Only casement window models rated *A*. Casement windows have always presented a difficult problem to storm-sash manufacturers. This *Kaufmann* model, although fastened to the steel frame of casement sash, is insulated from it. Arranged to open with the window, hinged for cleaning. *Screens are not available* with this model.

Keystone (Keystone Alloys Co., Derry, Pa.) $25.50 installed. Extruded aluminum frames with floating closure strips. Aluminum or plastic screening. A feature is the provision for changing glass, if broken, by the removal of two screws in the frame. Glass sealed in rubber.

Keystone Aluminum Double Hung Windows (Keystone Alloys Co.) $25.75, plus $13.58 extra for the two storm and one screen panels. With built-in storm sash-screen combinations. Same as *Keystone* above but with all features built into one unit for new construction. One big-city distributor is not recommending for use at seashore. Windows shipped unglazed (to conform to labor union make-work requirements).

KoolShade (Ingersoll Steel Div., Borg-Wagner Corp., 310 S. Michigan Ave., Chicago 4) Approximately $30.25 installed. Equipped with two storm sash and one *KoolShade* screen. Because of the sun-shading feature of the patented screen, two screens, upper and lower, are recommended at a total of $35.50. Price with ordinary screen about $1.75 "per light" less. Extruded aluminum frames with bronze *KoolShade* sun screen. *KoolShade* screen is ingeniously constructed with small horizontal louvers in place of conventional cross wires. Set at 17°, these effectively block out the sun's rays when it is high in the sky; acting as efficient miniature blinds against direct sun without greatly obstructing the view. They do have the disadvantage of cutting down the amount of light entering a room to a much greater extent than ordinary screens, and prospective purchasers would be well advised to check an actual installation to see if the amount of light reduction and interference with vision would be objectionable to them before making the purchase. Units considered well engineered and well constructed. In moist climates considerable deterioration may be expected due to electrolysis between the bronze and aluminum.

Orange All-Weather (Orange Screen Co., Maplewood, N.J.) $23 for 3 ft. x 4 ft. opening for frame, two storm sash, and one screen. Available with or without *Tuk-Away* feature, which makes it unnecessary to remove either screen or glass panel for seasonal storage.

Pease Screen-O-Sash (Pease Woodwork Co., Blue Rock & Turrill, Northside, Cincinnati) Low-cost wood sash and galvanized screen in which sash can be replaced by screen by removing inset panels with screwdriver. $10.25 with galvanized screening; $10.95 with bronze;

f.o.b. factory, only about 20% above the total price for the ordinary separate storm sash and screen in wood frames. The slight additional cost of bronze screening would be worth considering on this model.

Rusco Windows (F. C. Russell Co., 6400 Herman Ave., Cleveland 2) $25.60 installed. Galvanized 24-gauge steel, Bonderized, baked aluminum finish, with plastic *Velon* screening. Insets removable only from inside. As the screen frame is depended upon to provide rigidity in the winter, it must either be left in place outside of the lower sash or replaced with a dummy sash available for that purpose.

B. Intermediate

Vacol (V. E. Anderson Mfg. Co., Owensburg, Ky.) $18.50 for 3 ft. x 4 ft. opening, plus painting and installation. Wood frame, double-hung sash of the self-storage type. Frame permanently caulked to window. Weatherstripped and tightly sealed. Might be rated *A. Recommended* except that the appearance on the outside of the window frame is thought overbulky.

* * *

Ceco (Ceco Steel Products Corp., 5701 W. 26 St., Chicago 50) $25 for 3 ft. x 4 ft. opening, not including erection. All-extruded aluminum construction. Price, since it does not include erection, is higher than several comparable models, and the company's policy of recommending that the erection be done by others is considerably less desirable from buyer's standpoint than when company-trained men handle the work, since much of the insulating value of a storm sash can be lost by poor fitting. Good installation is thus a vital element of the problem.

Insul-Vent (Corry-Jamestown Mfg. Corp., Corry, Pa.) Approximately $26.25 for two windows and one screen, with $4.90 additional for extra screen if desired. Well constructed reinforced steel sash with zinc coating and baked enamel finish in gray only. Unit is well built and designed and might be rated *A. Recommended*, except that this is a stock model instead of being fitted in size to the window. Thus the light area may be considerably reduced in some cases. There was no compensation in the price as compared with the custom fabricated models.

Kaufmann (Kaufmann Corp.) Approximately $23 installed in Detroit area. All-aluminum, full-vision narrow frame, weather-sealed opening. Would appear to warrant an *A-Recommended* rating except for report from the field that a defect in the adjustment of a clamp for holding the two sash together was causing glasses to break.

Steel-Age (Corry-Jamestown Mfg. Corp.) Same as *Insul-Vent*.

Ozonizers Not Good for Records

THERE are already very good grounds for not using ozonizers (or "ozonators" as they are sometimes called), but there is a special reason not to use one in any place where records are stored. Ozone acts as a strong oxidizing agent to cause deterioration of organic compounds, and paper exposed to it for a long period will become discolored and brittle, according to a Bulletin of National Archives. An even more important reason for not using ozonizers is that ozone is very poisonous — much more so than carbon monoxide whose deadly properties in automobile garages are known to millions — for as little as 0.5 parts per million of ozone cause marked irritation of the mucous membranes of the nose and throat, and still higher concentrations kill mice in five hours' exposure. Ozone is also harmful to plants. Because of its toxicity and density, it was even suggested for use as a war gas.

A Day-Driving Aid for Motorists

Polaroid Day-Driving Visor, made by Polaroid Corp., Cambridge, Mass., is intended to eliminate the effect of and reduce the eye fatigue due to sun glare from the roads, for which use it appeared to be quite satisfactory in accordance with the well-known functioning of Polaroid plastic as a glare filter. It is judged, however, that a pair of good-quality sunglasses would serve about as well for the average user, and would be much more convenient. The *Polaroid Visor* was judged to be of little or no value in stopping direct glare from the sun when driving directly into the direction of the sun.

The manufacturer warns that the visor is not to be used for night driving, and it was, in fact, found ineffective in reducing the glare of oncoming headlights at night. The manufacturer did not make any claims for its usefulness in driving directly toward the sun. The claims for the device were very carefully phrased and showed signs of a clear intention not to deceive, or to misrepresent it in any way. The *Visor* was sold as an automobile sun visor to protect against sun-glare *from the road*, in "day driving."

As the plastic film of the device is pretty susceptible to scratching, care must be used in cleaning it. The price of the driving visor has been reduced recently from $4.95 to 98c, which would indicate that sales may have fallen far below expectations; even at the reduced price, it is CR's view that its value to the average driver would be open to doubt.

Four More Pressure Saucepans Tested

AS pressure saucepans come into increasingly common usage, studies of their characteristics and possible usefulness are appearing from time to time. One of these, judged worth recommending to those interested in a more complete discussion than we have space for here, is Concerning Pressure Saucepans, by Merna M. Monroe, Bulletin 455 of The Maine Agricultural Experiment Station, Orono, Maine. One copy of this bulletin will be sent free by the Station to anyone requesting it. Such questions as, "How much time does the pressure saucepan save?", "Can I use the pressure saucepan to cook for a large family?", and "Can I use the pressure saucepan on a slow stove?" are considered in the Maine bulletin. The author reaches the conclusion that *considerable* time savings are possible only when the saucepan is used for preparing foods whose cooking ordinarily take a long time. (See table.) The bulletin contains interesting information, and many homemakers interested in getting the most use out of pressure saucepans would find it good reading.

Vegetable	Boiled, Minutes	Pressure Cooked, Minutes	Time Saved, Minutes
Frozen peas	8	6	2
Fresh spinach	13	10	3
Cabbage, coarsely chopped	9	4	5
Potatoes, 1¼-in. thick	25	15	10
Carrots, sliced	17	6	11
Onions, whole	31	12	19
Rutabagas, 1-in. strips	33	13	20

In cooking for a large family, the pressure saucepan is practical only for foods which take a fairly long time to cook, for tender vegetables would be likely to be overdone, because of the considerable time necessary for building up pressure when there is a large amount of food in the saucepan; the food is cooking while the pressure is building up. As to the practicability of using pressure saucepans on a slow-cooking stove, this, according to the pamphlet, can be done if the stove supplies heat fast enough to boil away two measuring cups (1 pint) of water in half an hour.

The study shows further that the pressure saucepan cannot save much on the fuel bill if (1) cheap fuel is used; (2) the stove is of a kind that can be regulated for a very slow heat which would just hold simmering or very gentle boiling in an ordinary kettle; or (3) the saucepan is used regularly to cook vegetables and only once in a while for roasts, soups, etc., which take a long time. Savings will also not be possible if the stove is a kitchen range burning coal, wood, or oil, that is going to be used anyway for cooking or for heating the room. The pamphlet contains many other interesting items of information, but there is insufficient space for a full review here.

In previous BULLETINS, CR has discussed various questions of safety in connection with pressure saucepans and cookers. The importance of this is indicated by the fact that within the last few years the Underwriters' Laboratories have listed a number of these saucepans under their re-examination service. The UL marking on a pressure saucepan indicates that it is judged to be safe for operation if used according to directions. Their examination covers the structural safety of the assembled saucepan, safety of operation of the pressure control device, and requires that the saucepan closure device be such that it cannot be opened while a dangerous amount of pressure still remains.

Absence of the Underwriters' Laboratories' approval or UL tag does not necessarily mean that a device is unsafe, since the Laboratories do not test appliances unless asked to do so by the makers. When present, the tag provides an important safeguard, especially in view of the fact that many serious burns and other injuries have been caused by exploding pressure saucepans and canners, and consumers will be wise perhaps to avoid pressure saucepans and cookers whose manufacturers have not sought and obtained the Underwriters' approval. The cost of the service is modest considering the important errors of design or execution which the Underwriters' tests may disclose in an imperfectly engineered job.

Consumers' Research has long recommended that pressure saucepans should have both a pressure indicator and a pressure control valve. In some cases these are combined as in the *General Mills PressureQuick* saucepan to be discussed later in the listings. Two types of indicator gauges are in common use, one of which (called for convenience Type A) has the 0 to 20 pounds per square inch spread over 180 degrees of dial face in 1 pound intervals, the other (Type B) has the 0 to 20 pounds spread over only about 1/5 as large an arc in 5-pound divisions. Both usually depend upon a Bourdon tube for action, but the type which gives the larger angle of movement of the pointer is much more desirable, because it is much more

easily read, and the more open graduations permit more accurate control of pressure and the corresponding temperature.

Pressure control valves may be of the spring-loaded ball-valve type, spring-loaded needle-valve type, or a type in which a weight is used to furnish the closure of the opening through which the steam emerges. The weight-loaded valve in general is to be preferred because it should maintain its accuracy and reliability indefinitely.

Some of the pressure saucepans so far offered provide for holding the pressure at one figure (15 pounds per square inch). Others permit adjustment at lower pressures when desired, 5 or 10 pounds per square inch, an advantage when cooking frozen vegetables.

Of the saucepans listed, the *Burpee* is given an *A-Recommended* rating but with some reservations. With the exception of the type of emergency release plug, it has all the desirable characteristics noted in the August 1947 BULLETIN, as requisites for recommendation, and although it also has some faults, they were judged relatively unimportant.

The *Burpee* is equipped with both a pressure indicator and a pressure regulating valve. The indicator is of the superior Type A marked in one-pound divisions, screwed into the cover and cannot drop off due to careless handling; this permanence of attachment is a great advantage. The pressure regulator is a combination pet cock and needle valve and can be set manually by turning, to regulate the pressure from 1 to 22 pounds, as desired. This is advantageous not only for properly cooking foods which require low pressures, but makes it possible for housewives living in high-altitude regions where cooking must take place at a higher temperature, to adjust the pressure inside the pan upward as necessary to attain proper cooking temperatures. The *Burpee* booklet of instructions, however, shows pressure adjustment being made with the operator's bare fingers, a procedure almost sure to produce a burn. This is judged a serious error on the part of the manufacturer, for it was found very easy to make the adjustment safely by using a knife blade in the slots provided.

The emergency release was a continuously venting rubber-like plug. This type is not as desirable as the fusible plugs used in many cookers but would probably give reasonable protection; however, the user must be careful that the escape hole is not permitted to become clogged.

The lid sealing gasket is protected from damage by a rim which extends below it.

Closure is accomplished by tightening the thumb screw of a clamping band, a rather inconvenient, but nevertheless adequate, method of sealing. The band is an extra piece of equipment which must be stored, also something of a disadvantage.

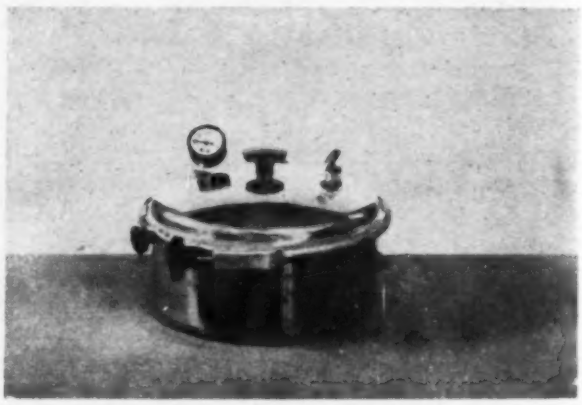
From this discussion, it can be seen that while the *Burpee* is not a perfect pressure pan and could be made more convenient to use, it nevertheless meets the requirements for recommendation set forth in the August 1947 BULLETIN and is considered worthy of an *A-Recommended* rating.

The methods CR has used in testing and examining pressure saucepans are described in previous BULLETINS. (See March 1946 BULLETIN.)

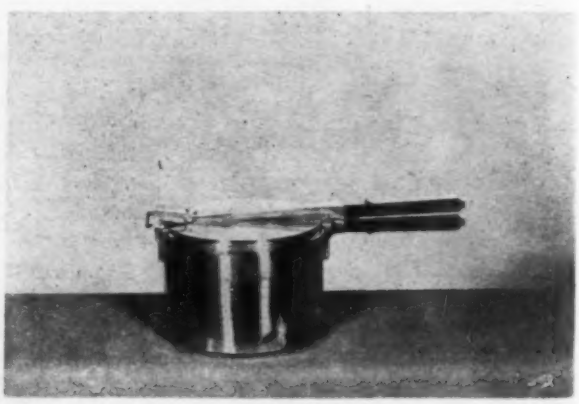
Ratings are cr48.

A. Recommended

Burpee Aristocrat, Model AR-4 (Burpee Can Sealer Co., Barrington, Ill.) $12.90. Capacity, 4 qt. Drawn aluminum; outside, polished; inside, dull but smooth; easily cleaned. Weight, with trivet, 4 lb. 15 oz. Two plastic handles, on opposite sides of cooker, necessitate handling with two hands, which may be awkward at times. Equipped with superior (Type A) pressure indicator and a spring-loaded needle valve for pressure control, adjustable from 1 to 22 lb. pressure per sq. in. Sealing gasket was protected by rim from damage if cover was accidentally laid on hot surface. Closure was by clamping band tightened with a thumb screw; the band is an extra item to put away. Emergency pressure release was an ever-venting rubber-like plug with a hole which might become clogged; attention would be required to keep it free from cooking residues. 1



Burpee Aristocrat, Model AR-4



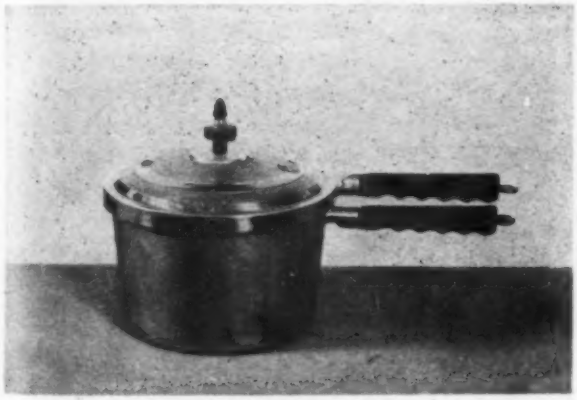
West Bend

B. Intermediate

West Bend (West Bend Aluminum Co., West Bend, Wis.) $12.95. Capacity, 4 qt. Cast aluminum cover; rolled sheet aluminum saucepan; finish, smooth inside and out. In use tests it was easy to clean and easy to handle, but all users found it difficult to judge just when to start timing. Absence of an indicating gauge in this type of cooker is especially disadvantageous. Weight, with trivet, about 5 lb. Had weight-type pressure controls hinged to cover to limit pressure at 10 and 15 lb. as desired; permanent attachment prevented them from falling off, which was an advantage. Had Underwriters' Laboratories' approval label. Sliding-lug type closure. Sealing gasket well protected from damage. Fusible-plug pressure release operated at approximately 23 lb. per sq. in. **1**

C. Not Recommended

Alca Cooker, Model 1600; also known as *Alcamatic* (Alcamatic Products Corp., Tuckahoe 7, N.Y.) $14.95. Capacity, 4½ qt.; can be increased to 7½ qt. by use of *Volume-Add* unit which retails at $4.95. Cast aluminum; outside bands of pebbled finish alternated with polished strips on lid, body pebbled; inside, dull but smooth. Easy to handle. Weight, with trivet, 5 lb. 9 oz. No indicating gauge. Had spring-loaded needle-type pressure-control valve which could be set for any pressure up to 20 lb. and provided a means of immediate venting; control was not operating properly and pressure built up sufficiently to blow out the overpressure release during one home cooking trial. The control valve was permanently attached, so there was no danger of dropping it when handling the cover. Sealing gasket was protected from damage. Sliding-lug closure. Fusible-plug emergency pressure release operated at approximately 27 lb. per sq. in. Approved by Underwriters' Laboratories. **2**



Alca Cooker, Model 1600

General Mills PressureQuick, Model GM3B (General Mills, Inc., Minneapolis 13) $16.95. Capacity, 4 qt. Cast aluminum alloy pan with bi-metal cover; outside, highly polished; inside, smooth. Easily cleaned. Handles, well shaped; saucepan was easy to handle. Weight, with trivet, 6 lb. Had indicating weight gauge which showed rise and fall of pressure and vented at from 20 to 22 lb. per sq. in. Pan was fairly easy to operate. Cover is made of two different metals bonded together; when heated, the top metal expands more than the lower, providing self-tightening lid, a real advantage. A locking device safeguarded by an effective valve prevented removal of lid while dangerous pressure remained (very advantageous). Gasket was unprotected against damage. The overpressure release device consisted of two small holes in upper edge of saucepan under the sealing gasket which were uncovered when gasket was pushed upward by pressure of about 50 lb. per sq. in., (much too high; otherwise would have merited a *B-Intermediate* rating). Rim extending inward around upper edge of saucepan made it somewhat awkward to remove food after cooking. Approved by Underwriters' Laboratories. **3**

General Mills PressureQuick, Model GM3B

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946, of Consumers' Research Bulletin published monthly at Washington, N.J., and Easton, Pa., for September 1947-September 1948 — State of New Jersey, County of Warren ss. Before me, a notary public in and for the State and county aforesaid, personally appeared F. J. Schlink, who, having been duly sworn according to law, deposes and says that he is the editor of the Consumers' Research Bulletin and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily, weekly, semiweekly or triweekly newspaper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the act of August 24, 1912, as amended by the acts of March 3, 1933, and July 2, 1946 (section 537, Postal Laws and Regulations), printed on the reverse of this form, to wit: 1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Consumers' Research, Inc., Consumers Road, Washington, N. J.; Editor, F. J. Schlink, Washington, N. J.; Managing editor, none; Business manager, none. 2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.) Consumers' Research, Inc., a non-profit, membership corporation, not a business enterprise, not operated for profit; Washington, New Jersey. Stock, none. 3. That the known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None. 4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him. F. J. Schlink. Sworn to and subscribed before me this twenty-first day of September, 1948. Marie M. Beers. (My commission expires May 14, 1951.)

Anti-Freeze

"PERMANENT"-TYPE (ethylene glycol base) anti-freeze is expected again to be in short supply this winter, but the non-permanent alcohol anti-freeze should be readily available.

The scarcity of the type of anti-freeze that many persons desire may cause many motorists to plan to re-use a quantity of permanent-type anti-freeze carried over from last winter. To do this may be unwise, according to information recently received. In the past (particularly during the war period when ethylene glycol was practically unobtainable for civilian use), it was common practice to re-use "permanent"-type anti-freeze solutions; this has been considered not only fully practicable but unobjectionable provided a suitable "reinhibitor" was added to prevent corrosion. The most commonly recommended inhibitor was sodium chromate or dichromate, and various manufacturers have sold powdered materials of this type widely through garages and filling stations, to be added to water and poured into the radiator. Lately it has appeared that the reinhibiting of anti-freeze solutions involved more complex problems than had been realized, and in November 1947 the National Bureau of Standards issued a release stating that "comparatively little harm results from reuse a second season, *if the antifreeze is reinhibited*, but third year use is hazardous." Later information by other researchers in scientific journals has indicated that chromates should not be used with anti-freeze solutions because some compounds used in the inhibitors of the anti-freeze react with the chromate and are destroyed, and the chromates have, besides, been found to have an undesirable oxidizing effect.

There is at the present time considerable doubt as to the wisdom of using any anti-freeze a second season. While it may seem expensive to use fresh anti-freeze each year, it is likely to prove the cheapest way in the end, for with today's extremely high repair and replacement costs the charge for replacing a water pump or radiator would come to several times the cost of new anti-freeze for the season.

There is no objection to use of chromate (in the correct amount)[1] for inhibiting the cooling water during the summer; indeed, the addition of this type of material is desirable only when water (not anti-freeze) is used in the radiator. (Tap water alone is corrosive.) When the radiator is to be filled with anti-freeze solution in the late fall, however, the cooling system should be thoroughly flushed to remove all traces of the chromate that was added to inhibit corrosion during the summer. The best information presently available to CR suggests that consumers should not use any anti-freeze a second season, and that they should inspect the anti-freeze solution frequently. It is important that at the first sign of rusty discoloration, the solution should be discarded, and replaced by new anti-freeze solution, after thoroughly flushing the cooling system.

Before the war there were almost no reports of difficulties with ethylene glycol anti-freeze, but during recent past winters a number of complaints of difficulty from clogged cooling systems have been heard from owners who have used ethylene glycol (or re-used it, because of its scarcity). The problem may have been complicated by the fact that during a long period, few new cars and radiators were produced, and existing radiators had become partially plugged or heavily coated with scale, rust, grease, and other substances; also that anti-freeze solutions were being used for more than one season, instead of being discarded as was common in early years. If ethylene glycol type of anti-freeze has been used successfully in past years, probably the same kind (and brand) of anti-freeze should continue to be used; there is some reason to suspect that changing from one kind of anti-freeze to another involves risk of clogging narrow passages in the radiator. (On this, unfortunately, there is no full or certain information available at this time.

We regret the lack of definiteness in several of these recommendations, but that, unfortunately, is the state of knowledge among engineers and others on this question at this time. Research which would more sharply resolve these questions has not been done, and if it were done, it would take a long time at best, since there are some questions which only tests carried out over a long period under varying conditions would establish with certainty.)

[1]Sodium chromate, 1 oz.; or sodium dichromate, 1 oz., plus sodium hydroxide (lye), 1/3 oz. Lye should be handled with care. Fresh water and sodium chromate should be added when the orange coloration of the water disappears.

It is best not to mix together different brands of ethylene glycol anti-freeze to bring the radiator liquid up to required anti-freeze strength.

It is believed that for a new car, under present conditions, the average consumer will be wise to use an ethyl alcohol anti-freeze (ethanol) in preference to others available.

Permanent Type

B. Intermediate

Gulf Permanent Type (Gulf Oil Co.)
Shellzone Permanent Type (Shell Oil Co.)

* * *

The following two brands chiefly contained mechanical type of inhibitors judged not as desirable as the chemical type used in *Gulf* and *Shellzone Permanent* anti-freeze.

Eveready Prestone (National Carbon Co.)
Stet (B. F. Goodrich)

Denatured Alcohol

Denatured ethyl alcohol (ethanol) is about the most satisfactory anti-freeze but does have serious disadvantages in regions at high altitudes because of its low boiling point (184°F at sea level) for a solution protecting to 0°. It is most suitable with engines equipped with thermostats that open at 160°. (The average temperature of the cooling solution in such engines may be around 170°F or even higher, and there will be a temperature rise of around 20°F after the car has stopped and the cooling liquid ceases to circulate; the extra 20 or 30 degrees accounts for loss of much alcohol by evaporation, and there may also be considerable loss by surging with liquid running out through the overflow pipe.)

Warning. The vapor from alcohol anti-freeze solutions is highly flammable, and the level of the cooling medium should never be inspected with a naked flame, or by the light of a cigarette. Be sure the gasket of the radiator cap is in good condition and makes a tight seal; otherwise alcohol vapors may escape and become ignited and set the car on fire.

A. Recommended

Ajax; Blue Club; Blue-Flo; Co-Op Protection Plus; Eastern States; Firestone Super; Five Star; Ford; Freez Free; Frost-Chek; Gamble's Bonded; Gamble's Completely Denatured Alcohol; General Motors; Mobil Freezone; Sears Cross Country; Sears Durozone; Sentinal; Silver Seal; Skelco; Standard Super; Super Gulf; Super Pyro; Thermo Royal; Montgomery Ward's Ice Guard; Montgomery Ward's Quaker High Test.

Methanol

Methanol (wood alcohol), while more effective and more economical than ethanol, is definitely not recommended as an anti-freeze because of the extremely poisonous nature of its fumes. Methanol properly labeled, carries a skull and crossbones poison warning, is plainly marked "Poisonous," and is usually colored with a strong violet hue to distinguish it from other anti-freeze materials.

Petroleum Distillate

Petroleum distillate, or other oil, often similar to deodorized kerosene or fuel oil, has been much sold in recent years as an anti-freeze, but it is not at all desirable for this purpose, for its boiling point is much too high and besides it has a deleterious effect on the rubber hose used in the cooling system. Kerosene anti-freezes are easily distinguished, as directions call for their being used undiluted, and they are lighter than water, weighing 6¼ lb. to 7 lb. per gallon (water weighs 8.3 lb. per gallon).

C. Not Recommended

Chem-A-Cool; Freeze-Proof; Neva-Freeze; Never-Freeze; Nev-R-Freez; No Boil; No Freeze; Safas.

Calcium Chloride

Calcium chloride or similar inorganic chemical *salt solutions are extremely corrosive*, and though many were sold some fifteen years ago and then offered again in many cases within the last several years, a saline anti-freeze should never under any circumstances be used. These brines are easily distinguished by a high density, running from 10½ to 11½ lb. per gallon. If a small amount is evaporated in the lid of a tin can or other container (not aluminum), a residue of white, dirty-brown, or gray-white crystals remains.

C. Not Recommended

Alcotex; All-Winter; Antarctic; Bird Antarctic; Bond (Top Line); Ever-Flo; Flexo; Fre-Zex; Frezpruf; Frigid; Frozone; Gold Seal; Kant-Freez; Lo-Temp; Lo-Zone; Permazone; Polar Bear; Security; 60 Below; Timber-Line; V-O; Vonzone; Wonder-Solv.

Other Types of Anti-Freeze

C. Not Recommended

Honey; glucose; and sugar solutions.

The New "Extra Low Pressure" Tires

New-Car Buyers Advised to Adopt a Wait-and-See Attitude

PRESENT SUBSCRIBER correspondence and field reports to CR indicate that many motorists are experiencing trouble of one sort or another with their new Extra Low Pressure (E.L.P.) tires. These troubles have been variously described as low mileage (4000 to 10,000 miles) as compared with regular pressure tires, excessive road noise, uneven or spotty wear, and difficulty in steering. It is CR's opinion that for the present, and until such time as these new tires have been more thoroughly "proven in," motorists would be well advised to continue using the "Regular Pressure" type of tires both for replacement and when ordering tire equipment for a new car. (This opinion, of course, is tentative.) It has been said that these tires are being pushed upon the public by the automobile industry as one of several sales features that result in a higher sale and profit in dollars to dealers and others concerned.

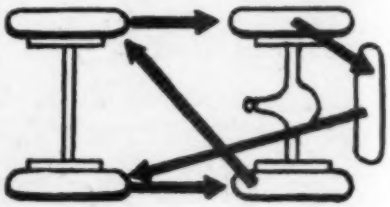
The following points can doubtless be applied to advantage by most users of E.L.P. tires.

1. Have *all* wheels dynamically balanced.

2. It is important that front wheels be correctly aligned (camber, caster, and toe-in are all important; caster and toe-in, especially, may be incorrect even in new cars). The steering linkage mechanism should be properly maintained so that there is no undue loose motion.

3. Use an accurate pressure gauge (don't trust service station gauges) and follow latest information from the tire manufacturer on the correct inflation pressure. If in doubt, check with the manufacturer by letter. Clearly identify your car as to make, type, year, etc.

4. Have the tires "switched" faithfully at least every 5000 miles, and if convenient, every 2500 to 3000 miles.



★★★

Preventing Freeze-Up of Auto Gasoline Lines

IN AN ARTICLE in our February 1946 BULLETIN, CR gave information about an expedient which could be used to prevent failure of cars to start under extreme winter conditions when the trouble was due to water in the gasoline line. The remedy was to add occasionally a small amount of anti-freeze methanol (wood alcohol). The brand names for some of the products sold for this purpose are: *Genuine Ford*, *Genuine General Motors*, *Mobile*, *Winter Flo*, *Trek*, and *Zerone*. The quantity used should not exceed one quart for a tank full of fuel, and a pint will ordinarily suffice.

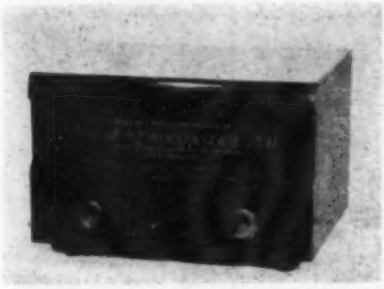
A trade brand product, *Cristy Dry Gas*, used for the same purpose has been analyzed. Its composition was found to be 2% acetone, 10% isopropyl ether, and 88% isopropanol. The maker recommends that a pint of this be used for a tank full of gasoline. The expense of regularly treating gasoline in winter months would be considerable, since *Dry Gas* sells at 69 cents a pint, equivalent to adding about 4½ cents per gallon to the cost of gasoline, an amount which is hardly trifling. Some of the claims made by *Cristy Dry Gas* in its advertising seemed objectionable; for example, those of "gives you peak motor performance," and "complete rust protection. . .fast starting in any weather." It seems the maker would have been wiser to confine his claims to "helps prevent freeze-up of fuel system in cold weather."

A rough experiment indicated that a pint of *Cristy Dry Gas* would dissolve about 1/40 of a pint of water. *Cristy Dry Gas* was found freely soluble in gasoline. It would appear that the product should serve well for its purpose. An expert chemist does not see why this product would be more effective than methanol previously recommended in preventing or correcting separation of water in the gas tank, and evidently the use of methanol (methyl alcohol) should be considerably less costly than the use of a proprietary article. It would have the same disadvantage as methanol does, that if spilled on the fender or other part of the car, it would damage the finish. Though it is not certain that the mixture would be free from possibility of harm to the parts of fuel system of a car, in every case, it is considered that there is little probability of such an effect.

An FM Tuner, Two AM-FM Phonograph Combinations (Non-High-Fidelity), A Table-Model Phonograph

Test of an FM Tuner

THE results of tests on the *General Electric FM Translator* when considered in relation to results of tests on other FM tuners already reported on are indicative of a fact important to everyone interested in FM equipment: namely, a big company with an outstanding name and reputation does not necessarily assure a first-class appliance. In fact it appears now, after considerable testing of FM equipment, that the degree of quality present in the $30 *Pilotuner* (reported in CR's November 1947 BULLETIN) is probably equal to or close to the maximum that is available in present-day FM receivers (with one or possibly two exceptions at a very high price).



General Electric FM Tuner XFM-1

C. Not Recommended

General Electric FM Translator, Model XFM-1 (General Electric Co., Syracuse) $49.50. For operation on 110 to 250 volts, 50-60 cycles a.c. (was originally manufactured for export). Walnut finished cabinet 11 in. high, 16 in. wide, 11 in. deep. Quality of construction, above average. Limiter-discriminator circuit. Quieting sensitivity about 18 microvolts, but other limitations with regard to distortion limited usable sensitivity to approximately 200 microvolts (very poor). Distortion was also present at higher signal levels if the volume control was advanced more than one-quarter rotation. Like most FM receivers tested so far, the *GE XFM-1* was difficult to tune. Drift, very large during warm-up period, amounted to approximately 100 kilocycles in 18 minutes and was sufficient completely to detune a signal after it had been properly tuned in. De-emphasis circuit did not provide the needed complete de-emphasis. Satisfactory as to leakage current (shock hazard). 3

AM-FM Phonograph Combinations, Non-High-Fidelity

THE two *Magnavox* combinations in the listings following are separated by slightly over $100 in selling price. For that difference the *Berkeley* incorporates wholly separate AM and FM tuners, rather than one of the combined type used in the *Traditional;* the separate units give better sensitivity; there are two 12-inch speakers instead of a single 12-inch speaker (two considered a definite advantage by CR), a slightly larger cabinet, and a tuning indicator tube, which is considered practically essential by many experts for proper tuning of an FM unit. The more expensive set gives measurably better reception and is considered to be well worth the difference to those who can afford the extra $116 or so.

Both sets used the same record changer mechanism, the *Webster-Chicago,* Model 156, modified. This changer still retains one undesirable feature which was characteristic of the *Model 56* (the model superseded), namely, the spindle is secured to the changer chassis by a key or cotter pin. This can result in excessive center-hole wear in records as they are lifted over the spindle after being played. For this reason, CR recommends that the owners of either the *Webster-Chicago,* Model 56, 156, or 256, remove the key — if they have not already done so — so that the spindle can be removed before records are taken from the turntable.

Record player capacity, in both cases, was twelve 10-inch records or ten 12-inch records. Both players were equipped with the same special crystal cartridge using a "precious metal" alloy needle with ¾-oz. needle pressure.

A. Recommended

Magnavox "Berkeley," Model 134BF (The Magnavox Co., Fort Wayne, Ind.) $415. An AM-FM phonograph combination including short-wave AM and using separate superheterodyne circuits. Mahogany-veneer cabinet. 18 tubes, including 2 rectifiers. Quality of parts,

excellent, with good workmanship indicated throughout. Sensitivity and selectivity, excellent on both AM and FM. Acoustical quality of amplifier and speaker, very good, with good balance for tonal range present (60 to 9500 cycles [10 db. down], with some contribution to 12,000 cycles). Electrical fidelity (10 db. down) through AM section, 30 to 6200 (good); through FM section, 40 to 15,000 (ample). The two 12-in. dynamic speakers were of a slightly different construction, which should tend to improve performance of the speaker system at the low-frequency end. Diffusers for the high frequencies were found to be effective. Power output of amplifier, ample and considerably above that of other receivers in this price range (12 watts at 50 cycles, 16 at 400, 3.5 at 10,000, all at 5% distortion). Inverse feedback is desirable with beam-power output tubes, and inclusion of an inverse feedback circuit might have improved the reproduction at low frequencies somewhat. While the AM circuits were too selective to permit high-fidelity reproduction — even in the broad-tuning position — this is not considered a disadvantage in practice (considering the poor fidelity of nearly all of today's AM broadcasting), and in localities some distance from the more powerful broadcasting stations, the selectivity of the receiver would result in a lower noise background. Leakage current (shock hazard), fairly high (0.9 ma.). 3

B. Intermediate

Magnavox "Traditional," Model 240B (The Magnavox Co.) $298.50. An AM-FM phonograph combination. Mahogany veneer cabinet 35 in. high, 32.5 in. wide, 16 in. deep. 11 tubes (including rectifier). Superheterodyne circuit for AM and FM. Single 12-in. *Magnavox* electrodynamic speaker used. Parts and workmanship in chassis and cabinet of good rugged quality and considered superior to any other receiver tested in this price range. Sensitivity on AM, excellent; on FM, only fair (set is therefore not recommended for use in areas at a considerable distance from good FM broadcasting stations). Selectivity, excellent. Tonal quality sounded limited due to lack of high-frequency response (high selectivity of AM circuit and limited range of loud-speaker were primary causes of poor high-frequency response on AM). Acoustical range 60 to 7000 cycles (FM only). Electrical fidelity on AM, 40 to 4000 cycles (mediocre); on FM, 40 to about 15,000 (ample). Power output, 1.8 watts at 60 cycles, 8.5 at 1000, 3.0 at 10,000 — all at 5% distortion. Leakage current (shock hazard), considerable (2.0 ma.). 3

A Table-Model Phonograph

B. Intermediate

Magnavox "Concerto" (The Magnavox Co., Fort Wayne, Ind.) $59.95. For a-c operation only. Well-made blond-finished plywood cabinet 19 in. long, 14 in. deep, 13 in. high. Three tubes used, including rectifier and one 2A3 triode output (use of triode unusual.) Lightweight rim-drive turntable. Pickup used *Astatic L-71* crystal cartridge with changeable so-called "permanent" stylus (apparently "precious metal" alloy). Tone control, "treble-cut" type (of little use in this case). Needle pressure, 1¾ oz. (high). Excessive tracking error. Played a single 10-in. or 12-in. record. 8-in. electrodynamic speaker. Workmanship, accessibility for servicing, and quality of parts, all good. Frequency response (electrical), 50 to 3500 cycles (10 db. down; 15 db. down at 8000 cycles). Acoustical response, 50 to 4000 cycles (10 db. down). Power output at 5% distortion held up well between 100 and 10,000 cycles — 1.6 watts or better (very good for a table-model player). Noise level not considered objectionable. Surface noise low, as heard through speaker. In the listening test, the tone was judged to be good considering the size and type of the unit. Bass response was fairly good but treble response only fair (apparently limited by both pickup and speaker); thus tonal balance was not satisfactory. Amplifier unusually good, price considered, in that it permitted maintaining fairly high volume level without blasting or discomfort, and tone was considered superior to most table-model phonographs. Had this unit offered better response at the higher frequencies, an *A-Recommended* rating would have been warranted. 3

Off the Editor's Chest

(*Continued from page 2*)

we thought the Food and Drug Administration could not do a better job of protecting consumers if it were to be granted a larger appropriation and if it were given power to proceed against products which were locally distributed and not strictly limited to those moving in interstate commerce. Those two questions rather stuck in our mind, at the close of the conversation.

At the first opportunity we looked back over the files of releases and magazines from which CR's analyses of motion picture reviews are taken and discovered what appears to be a marked recent trend to glorify in films the exploits of federal government bureaus. There was, of course, "The House on 92nd Street," dealing with the counter-espionage work of the F.B.I., which was an outstanding success some years ago and established as an effective technique the use of the "documentary" style of presentation to give authenticity to the development of the plot. Since then the same company and others have produced several pictures of the semi-documentary type including "To the Ends of the Earth," which was advertised as based on the secret files of the Treasury and the Narcotics Bureau; "T-Men," which dealt with the Treasury's operations against counterfeiters; "Walk a Crooked Mile," built around the efforts of the

F.B.I. to block the attempts of a Communist spy ring to obtain secret atomic energy information, and the recent "The Street With No Name," which is also devoted to the exploits of agents of the F.B.I. Like the straight-shooting, two-pistolled, hard-riding U.S. marshall of the best Western tradition, the G-man has become a dramatic symbol of the triumph of law and order over the forces of evil and wrong doing. In the excitement of the chase and capture of law breakers, few will be conscious of an underlying purpose of increasing the citizen's tendency to rely upon federal government agencies to do what a generation ago he was content to have done, and often to have done very well, by *local* forces of law and order. To glorify the work of the Food and Drug Administration, however, will be a more difficult job and one that is hardly a subject for a motion picture to which people go for entertainment and diversion; or is Hollywood offering the government bureaus a new method of lobbying for appropriations? It must be remembered that these pictures cost the taxpayers money, and, in effect, where they involve expenditures of time and money by the bureaus themselves in cooperating with the motion picture producers, violate the Congressional prohibition which forbids the federal bureaus from lobbying for their own enlargement and popularity.

Under the provisions of the Food, Drug, and Cosmetic Act of June 25, 1938, the scope of the Food and Drug Administration was greatly enlarged. Specifically the Food and Drug Administration is given legal powers to proceed against dangerous drugs and devices and cosmetics that are hazardous and are sold in interstate commerce. One provision of the Act provides that new drugs cannot be marketed in interstate commerce unless an application has been filed establishing that it is safe for use. Foods that are injurious to health are barred from interstate shipment, and the Food and Drug Administration is required to police the amount of poisonous spray residues permitted to remain on fruits and vegetables when they are marketed. The F. and D. Admin. is also empowered to set standards of identity for food, and where no standard has been issued and when the product contains more than a single ingredient, the name of each ingredient must be stated on the label. That in brief is a summary of the activities of this bureau. It will be interesting to see whether the talents of a Hollywood motion picture company can make the seizure of three dozen boxes of a mislabeled vitamin wafer as dramatic as the capture of atomic-research spies or narcotic smugglers.

The activities of the Food and Drug Administration are fundamentally a *technical* job involving the work of able physicists and chemists, some of them working in difficult and pioneering aspects of analyses of organic materials. A film correctly representing the work of the Food and Drug Administration, therefore, would be far more interesting to students in college laboratories learning the techniques of physical, chemical, and bacteriological analysis than to general audiences, who will find little to interest them in such a film unless it dramatizes and in effect overplays the portrayal of the normal functioning of this bureau.

Perhaps the movie magnates are unaware of it, but in so far as they produce films which glorify governmental agencies, they are in effect urging that their federal corporation taxes and the taxes of their artists, technicians and other employees be increased, for when the federal government succeeds in increasing personnel because of popularization of its activities, everyone is going to pay — not just those who have special need of the services of the agencies.

The wisest expenditure of public moneys is always in activities close to home, where they can be watched and understood. It is the states' and cities' food and drug work which needs to be "glorified" and strengthened, and there would be a net gain to the taxpayers if some of the money that might have been spent on federal food and drug work were assigned to local authorities. The crying need at the present time is to put the government of the United States back in the places where it used to be, in the localities, counties, towns, cities, and states, where the natural frugality of the people and their clear perception of where the tax moneys are spent — and their *seeing* it spent — provide a natural and powerful restraint against governmental expansion tendencies that make the federal bureaucracy grow beyond need, even beyond the power of Congress and the voters to keep it under proper control and to a reasonable size and rate of expenditure.

★ ★ Corrections and Emendations to Consumers' Research Bulletins ★ ★

Extenders for Bed Rails
Page 30
July 1948

The manufacturer of the *Long Boy* Bed Rail Extensions informs us that extensions increasing the bed length by 3 inches are now available in addition to the 6- and 10-inch sizes, and that all three sizes come in blonde, mahogany, maple, and walnut. These extensions are made of steel; they do not fit metal beds unless the beds have bed-hook-type rails similar to ordinary wooden bed rails.

Radios
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Col. 2
June '48

Delete last sentence in listing of *Silvertone* clock radio.

Ward's Airline Table-Model Radio

THE *Airline* table-model radio (Montgomery Ward's Cat. No. 62—1503M) was first reported in the March 1948 BULLETIN. At that time it was given a *C-Not-Recommended* rating because of very bad image response and poor tracking, an indication of a possible defective unit. It was returned for servicing to the retail store at which it was purchased. Finally, after much waiting and many inquiries, it was returned—supposedly repaired. The performance, however, seemed unchanged and investigation showed that the set was still very poorly aligned. (It is to be hoped that this is not representative of the way mail-order radio retail stores handle radio servicing on defective sets they have sold.) The set was then correctly aligned by CR, but image response was still bad and considerable code interference present through most of the band. The *C-Not-Recommended* rating accordingly stands.

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†indicates that listings of names or brands are included.

Ratings of Motion Pictures

THIS section aims to give critical consumers a digest of opinion from a wide range of motion picture reviews, including the motion picture trade press, leading newspapers and magazines—some 19 different periodicals in all. The motion picture ratings which follow thus do not represent the judgment of a single person, but are based on an analysis of critics' reviews.

The sources of the reviews are:

Box Office, Charm, Chicago Daily Tribune, Cue, Daily News (N.Y.), *The Exhibitor, Harrison's Reports, Motion Picture Herald, National Legion of Decency List, Newsweek, New York Herald Tribune, New York Times, Parents' Magazine, Release of the D.A.R. Preview Committee, Successful Farming, Time, Variety* (weekly), *Weekly Guide to Selected Motion Pictures* (National Board of Review of Motion Pictures, Inc.), and *Unbiased Opinions of Current Motion Pictures* which includes reviews by the General Federation of Women's Clubs, the American Legion Auxiliary, National Film Music Council, and others.

The figures preceding the title of the picture indicate the number of critics who have been judged to rate the film A (recommended), B (intermediate), or C (not recommended) on its entertainment values.

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

adv—adventure
biog—biography
c—in color (Technicolor, Cinecolor, Trucolor, Magnacolor, Vitacolor, etc.)
car—cartoon
com—comedy
cri—crime and capture of criminals
doc—documentary
dr—drama
fan—fantasy
hist—founded on historical incident
mel—melodrama
mus—musical
mys—mystery
nov—dramatization of a novel
rom—romance
soc—social-problem drama
trav—travelogue
war—dealing with the lives of people in wartime
wes—western

A	B	C		
—	5	5	**Abbott & Costello Meet Frankenstein**	*com A*
1	4	3	**Act of Murder, An**	*dr A*
—	5	—	**Adventures in Silverado**	*wes AYC*
—	3	4	**Adventures of Gallant Bess**	*wes-c AYC*
2	8	8	**All My Sons**	*dr A*
—	5	3	**Angelina**	*propaganda-dr A*
—	6	13	**Anna Karenina**	*dr A*
—	8	8	**Another Part of the Forest**	*dr A*
—	3	—	**Apartment for Peggy**	*dr-c A*
—	5	9	**April Showers**	*mus-com A*
1	3	13	**Arch of Triumph**	*war-dr A*
—	7	9	**Are You With It?**	*mus-com AY*
—	4	3	**Argyle Secrets, The**	*cri-mel A*
—	6	—	**Arizona Ranger, The**	*wes A*
—	—	3	**Arkansas Swing, The**	*mus-com AYC*
—	2	4	**Arthur Takes Over**	*com A*
—	3	3	**Assigned to Danger**	*cri-mel A*
2	5	7	**Babe Ruth Story, The**	*mus-biog AYC*
—	3	10	**Bad Sister**	*nov A*
—	3	1	**Behind Locked Doors**	*mel A*
—	12	5	**Berlin Express**	*war-mel AY*
—	5	1	**Best Man Wins**	*com A*
—	—	4	**Betrayal, The**	*mel A*
—	4	9	**Beyond Glory**	*dr A*
1	10	6	**Big City**	*mus-dr AYC*
—	6	3	**Big Punch, The**	*dr A*
—	—	6	**Big Town Scandal**	*mel AYC*
—	7	—	**Black Arrow, The**	*adv AY*
—	2	2	**Blanche Fury**	*mel-c A*
—	2	1	**Blazing Across the Pecos**	*mus-wes AYC*
—	1	7	**Blind Desire**	*dr A*
—	3	3	**Blonde Ice**	*mel A*
—	4	1	**Blondie's Reward**	*com AYC*
—	3	2	**Bodyguard**	*mel AY*
—	3	3	**Bold Frontiersman, The**	*wes AYC*
—	9	5	**Brothers, The**	*dr A*
—	2	3	**California Firebrand**	*mus-wes-c AYC*
—	—	6	**Campus Sleuth**	*mus-com AY*
—	10	3	**Canon City**	*doc-cri-mel A*
—	2	3	**Carson City Raiders**	*wes AYC*
—	6	8	**Casbah**	*mus-mel A*
—	3	2	**Champagne Charlie**	*mus-com AY*
—	4	3	**Checkered Coat, The**	*mel A*
—	1	3	**Clandestine**	*war-dr A*
—	1	8	**Close-Up**	*war-mel A*
—	1	6	**Cobra Strikes, The**	*cri-mel A*
—	3	3	**Code of Scotland Yard**	*cri-dr A*
—	6	—	**Confessions of a Rogue**	*com A*
1	8	1	**Coroner Creek**	*wes-c A*
—	4	2	**Counterfeiters, The**	*mel A*
—	—	3	**Crossed Trails**	*wes AYC*
—	4	1	**Dammed, The**	*war-dr A*
—	2	5	**Daredevils of the Clouds**	*mel AY*
—	11	4	**Date With Judy, A**	*mus-com-c AY*
—	2	5	**Day of Wrath**	*mel A*
—	1	2	**Dead Don't Dream, The**	*wes AYC*
—	7	6	**Dear Murderer**	*cri-mel A*
—	11	4	**Deep Waters**	*dr-c AYC*
—	9	2	**Design for Death**	*war-doc A*
—	1	3	**Devil's Cargo**	*mys-mel A*
—	—	5	**Docks of New Orleans**	*cri-mel AY*
—	7	9	**Dream Girl, The**	*com A*
—	1	8	**Dreams That Money Can Buy**	*fan-c A*
—	10	—	**Dude Goes West, The**	*wes-com AYC*
2	16	1	**Easter Parade**	*mus-com-c AYC*
—	6	4	**Embraceable You**	*cri-mel A*
3	13	2	**Emperor Waltz, The**	*mus-com-c AY*
—	1	6	**Enchanted Valley, The**	*dr-c YC*
—	3	7	**End of the River**	*dr A*
—	7	6	**Escape**	*nov A*
—	3	2	**Eyes of Texas, The**	*mus-wes-c A*
—	6	5	**Feudin', Fussin', and A-Fightin'**	*mus-com AYC*
—	—	3	**Fighting Back**	*mel AYC*
—	10	7	**Fighting Father Dunne**	*dr AYC*
—	—	3	**First Opera Film Festival**	*mus-dr A*
—	3	5	**Fledermaus, Die**	*mus-com-c A*
—	5	1	**For the Love of Mary**	*mus-com AY*
4	9	4	**Foreign Affair, A**	*mus-com A*
2	11	3	**Fort Apache**	*wes AYC*
1	12	2	**Four Faces West**	*wes-dr AYC*
—	1	5	**French Leave**	*com AY*
—	3	2	**Fric-Frac**	*com A*
—	4	2	**Friend Will Come Tonight, A**	*war-mel A*
—	9	3	**Fuller Brush Man, The**	*cri-com A*
—	9	3	**Fury at Furnace Creek**	*wes AYC*
—	6	1	**Gallant Legion, The**	*mus-wes AYC*
—	4	3	**Gay Intruders, The**	*com A*
—	—	3	**Gelosia**	*cri-dr A*
—	1	2	**Gentleman from Nowhere, The**	*mys A*
—	12	3	**Give My Regards to Broadway**	*mus-com-c AY*
—	9	4	**Good Sam**	*com A*
—	12	2	**Green Grass of Wyoming**	*dr-c AYC*
—	1	4	**Guns of Hate**	*wes AYC*
4	4	1	**Hamlet**	*dr A*
—	2	11	**Hatter's Castle**	*mel A*
—	1	3	**Hawk of Powder River, The**	*wes AYC*
—	3	13	**Hazard**	*com A*
—	—	5	**Heart of Virginia**	*dr AYC*
—	2	3	**Henry IV**	*hist-dr A*
—	2	6	**Here Comes Trouble**	*com-c A*
—	6	3	**Hollow Triumph**	*mel A*
1	8	6	**Homecoming**	*war-dr A*
—	—	4	**Honorable Catherine, The**	*com A*
—	3	5	**I, Jane Doe**	*mel A*
—	2	2	**I Surrender Dear**	*mus-com AY*

A	B	C		
—	1	7	**I Wouldn't Be in Your Shoes**	*cri-mel A*
—	2	3	**Illegals, The**	*doc-dr A*
—	3	2	**In This Corner**	*mel A*
—	3	2	**Innocent Affair, An**	*mus-com A*
—	5	3	**Inside Story, The**	*com AYC*
4	12	2	**Iron Curtain, The**	*doc-mel AYC*
—	2	4	**Isn't It Romantic?**	*mus-com A*
—	4	2	**Jinx Money**	*mys-mel AY*
—	5	—	**Joe Palooka in Winner Take All**	*mel AY*
1	2	—	**Johnny Belinda**	*dr A*
1	7	1	**Julia Misbehaves**	*com A*
3	7	3	**Key Largo**	*mel A*
—	3	1	**Kidnapped**	*mel AYC*
—	—	3	**King of the Bandits**	*wes AYC*
—	1	5	**King of the Gamblers**	*mel A*
—	—	6	**Lady at Midnight**	*mys-mel AY*
—	5	12	**Lady from Shanghai, The**	*mus-mel A*
1	7	3	**Larceny**	*mel A*
—	4	4	**Let's Live Again**	*com A*
—	6	12	**Letter from an Unknown Woman**	*dr A*
—	1	5	**Lightnin' in the Forest**	*cri-com A*
2	8	1	**Lost One, The**	*mus-dr A*
—	8	4	**Loves of Carmen, The**	*dr-c A*
—	1	4	**Loves of Don Juan, The**	*dr A*
—	8	3	**Luck of the Irish, The**	*fan AYC*
—	5	10	**Lulu Belle**	*mus-mel A*
—	7	4	**Luxury Liner**	*mus-com-c AYC*
—	—	3	**Lysistrata**	*dr A*
—	2	6	**Madonna of the Desert**	*mel AY*
—	1	7	**Man from Texas, The**	*wes A*
—	8	3	**Man-Eater of Kumaon**	*mel A*
1	1	1	**Marius**	*com A*
—	1	2	**Marriage in the Shadows**	*war-dr A*
—	3	6	**Meet Me at Dawn**	*com A*
3	8	4	**Melody Time**	*mus-car-c AYC*
—	5	2	**Michael O'Halloran**	*dr AYC*
—	4	6	**Mickey**	*mus-com-c AYC*
—	6	5	**Mine Own Executioner**	*mel A*
—	4	1	**Miracle in Harlem**	*mus-mel-c A*
—	2	2	**Miraculous Journey**	*mel-c AYC*
—	3	—	**Miss Tatlock's Millions**	*com A*
—	2	3	**Money Madness**	*cri-mel AY*
—	1	3	**Moonrise**	*dr A*
1	12	2	**Mr. Blandings Builds His Dream House**	*com A*
—	4	2	**Mr. Orchid**	*war-dr A*
—	10	2	**Mr. Peabody and the Mermaid**	*fan A*
—	4	4	**Murderers Among Us**	*war-dr A*
—	3	1	**Music Man**	*mus-com AY*
—	3	1	**My Dear Secretary**	*com A*
—	3	4	**My Dog Rusty**	*dr AY*
—	4	3	**Mystery in Mexico**	*mys-mel A*
—	2	4	**Nails**	*dr A*
—	9	1	**Night Has a Thousand Eyes**	*mel A*
—	3	3	**Night Wind**	*dr AY*
—	6	1	**Noose Hangs High, The**	*com AYC*
—	7	1	**Northwest Stampede**	*mel-c AYC*
—	3	1	**Not Guilty**	*mel A*
—	7	5	**October Man, The**	*cri-mys A*
—	4	4	**Old Los Angeles**	*mus-wes AYC*
—	3	—	**Olympic Cavalcade**	*doc AYC*
—	9	8	**On An Island With You**	*mus-com-c AY*
—	4	3	**One Touch of Venus**	*mus-fan A*
—	1	3	**Out of the Storm**	*mys-mel AY*
—	1	2	**Overland Trails**	*wes AYC*
2	7	2	**Paisan**	*war-dr A*
—	—	3	**Partners of the Sunset**	*mus-wes AY*
—	—	3	**Phantom Valley**	*mus-wes AYC*
1	12	4	**Pirate, The**	*mus-dr-c A*
1	8	4	**Pitfall, The**	*mel A*
—	2	6	**Port Said**	*mel AY*
—	3	3	**Portrait of Innocence**	*dr A*
—	1	2	**Prairie, The**	*hist-nov A*
—	1	5	**Private Life of An Actor**	*biog A*
—	4	1	**Quiet Weekend, A**	*dr AY*
—	2	10	**Race Street**	*cri-mel A*
—	6	4	**Rachel and the Stranger**	*mus-dr A*
—	—	3	**Range Renegades**	*mus-wes AYC*
—	8	4	**Raw Deal**	*cri-mel A*
—	6	1	**Razzia**	*mel A*
6	4	1	**Red River**	*wes-dr A*
—	4	8	**Return of the Bad Men**	*wes AYC*
—	3	—	**Return of Wildfire, The**	*wes-c AYC*
—	8	6	**River Lady**	*mel-c A*
—	4	2	**Rocky**	*dr AYC*
—	11	1	**Romance on the High Seas**	*mus-com-c A*
—	3	1	**Room Upstairs, The**	*dr A*
—	8	4	**Rope, The**	*cri-dr-c A*
—	—	3	**Rossini**	*mus-biog A*
—	7	7	**Ruthless**	*dr A*
1	3	3	**Saxon Charm, The**	*dr A*
—	1	4	**Sealed Verdict**	*war-dr A*
4	11	3	**Search, The**	*war-dr AY*
1	4	—	**Secret Land, The**	*doc-c AY*
—	1	6	**Secret Service Investigator**	*cri-mel AY*
—	4	5	**Shaggy**	*dr-c AYC*
—	1	3	**Shanghai Chest, The**	*mys-mel AY*
—	1	4	**Shed No Tears**	*cri-mel A*
—	1	5	**Showtime**	*mus-com A*
—	—	4	**Silent Conflict**	*wes AYC*
—	3	9	**Silver River**	*wes-dr A*
4	12	1	**Sitting Pretty**	*com A*
—	5	4	**16 Fathoms Deep**	*mel-c AY*
—	6	5	**Smart Woman**	*dr A*
—	8	10	**So Evil My Love**	*cri-mel A*
—	5	2	**So This Is New York**	*com A*
—	2	3	**Son of the Regiment**	*war-dr A*
—	4	2	**Sofia**	*mus-mel-c A*
—	3	2	**Song is Born, A**	*mus-com-c A*
—	2	2	**Song of Idaho**	*mus-wes AY*
—	6	5	**Sorry, Wrong Number**	*mel A*
—	6	3	**Southern Yankee, A**	*com AYC*
—	5	2	**Spiritualist, The**	*mys-mel A*
—	2	2	**Spring**	*mus-com A*
—	1	4	**Stage Struck**	*cri-mel A*
4	9	3	**State of the Union**	*dr A*
—	4	1	**Station West**	*mus-mel AYC*
—	1	2	**Strange Victory**	*doc A*
—	6	—	**Strawberry Roan, The**	*mus-wes-c AYC*
1	15	—	**Street With No Name, The**	*cri-mel A*
—	—	7	**Sword of the Avenger**	*dr-c AY*
1	4	1	**Symphonie Pastorale**	*dr A*
2	9	6	**Tap Roots**	*dr-c A*
—	5	4	**Tarzan and the Mermaids**	*adv AYC*
—	3	5	**Texas, Brooklyn and Heaven**	*com A*
—	8	8	**That Lady in Ermine**	*mus-com-c A*
1	3	1	**They Are Not Angels**	*war-dr A*
—	3	4	**Thirteen Lead Soldiers**	*cri-mel AY*
—	6	1	**Thunderhoof**	*mel-c A*
—	2	3	**Timber Trail, The**	*mus-wes-c AYC*
—	11	5	**Time of Your Life**	*com A*
—	5	10	**To the Victor**	*war-mel A*
—	2	1	**Trail to Laredo**	*mus-wes AYC*
—	1	6	**Train to Alcatraz**	*mel A*
—	—	6	**Trapped by Boston Blackie**	*mys-mel AY*
—	—	3	**Triggerman**	*wes AYC*
—	4	1	**Twisted Road, The**	*cri-dr A*
—	5	5	**Two Guys from Texas**	*mus-com-c AY*
—	1	3	**Under California Stars**	*mus-wes-c AYC*
—	6	11	**Up In Central Park**	*mus-com A*
—	2	3	**Urubu**	*adv A*
—	—	5	**Vacation Days**	*mus-wes AYC*
—	3	5	**Variety Time**	*mus-com AY*
—	8	8	**Velvet Touch, The**	*dr A*
—	1	9	**Vicious Circle, The**	*cri-dr A*
—	5	—	**Walk a Crooked Mile**	*mel A*
—	5	5	**Wallflower**	*com A*
—	3	10	**Walls of Jerico, The**	*dr A*
—	4	4	**Waterfront at Midnight**	*cri-mel A*
—	1	2	**West of Sonora**	*mus-wes AYC*
—	1	4	**Where Words Fail**	*mus-dr A*
—	1	4	**Whirlwind Raiders**	*mus-wes AYC*
—	—	3	**Whispering City**	*mys-mel A*
—	—	3	**White Stallion**	*wes AYC*
—	4	2	**Who Killed Doc Robin?**	*cri-com AYC*
—	3	1	**Who Killed Santa Claus?**	*dr A*
—	—	4	**Will It Happen Again?**	*war-doc A*
—	5	1	**Winner's Circle, The**	*dr-c AYC*
—	2	13	**Winter Meeting**	*dr A*
—	10	4	**Woman in White, The**	*cri-mel A*
—	4	3	**Wreck of the Hesperus, The**	*dr AYC*
—	3	—	**Your Red Wagon**	*dr A*

The Consumers' Observation Post

(Continued from page 4)

HOME PERMANENT WAVES are considered by some beauty trade associations to be quite a menace to the profitable operations of their members. Alert women and women legislators will need to be increasingly on guard in the near future to see that restrictive legislation is not passed which would make it difficult if not impossible for a woman to give herself a home permanent or to help a friend with one unless she has a license. In New Jersey, for example, the Legislative Committee of the New Jersey Association Master Hairdressers has been circulating petitions to support amendments to present New Jersey Beauty laws [sic] which read in part: "Beauty Culture is to be termed a profession and work done with or without compensation in shops, schools, private homes or any other place must have a license. . . . . A student must have completed their [sic] tenth year in High School and 1200 hours in a beauty school before taking an examination for a license." There is no doubt that, all things considered, a better permanent will be secured from a professional operator than a home job, but the woman who has a knack of doing her own at an expenditure considerably less than the cost of a professional wave should certainly not be made a law violator for her work. The situation is one that women's club legislative representatives will do well to keep a watchful eye on. Eternal vigilance is the price necessary to prevent unreasonable legislative and administrative curtailments of individual liberty.

* * *

SINCE PRESSURE COOKERS have become popular, can openers have tended to take a back seat. It appears that the lady of the house is able to cook raw vegetables in her pressure cooker so promptly when she arrives home late from a bridge party that she no longer has to resort to opening a can. At any rate, that is the way Food Industries explains it.

* * *

CORRECTION PLEASE: In the item on soluble coffee in the June 1948 Observation Post, a clerical error was made, and the figures which were intended to

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be grains per cup of caffeine content appeared as percent. The correct figures are: Kellogg's Frozen Flavor Instant All-Coffee, approximately 1 grain per cup; Barrington Hall Pure Instantly Prepared Coffee, 3/4 grain per cup: Instant Maxwell House Coffee and Nescafe, each 1/2 grain per cup. A sample of G. Washington's Instant Coffee purchased in Canada and presumably not made in the American plant, showed over 1 grain, while a sample of the same brand purchased in the United States had only 1/3 grain per cup. The essential finding of the item, which appeared in the last sentence, that on the average the soluble coffees will supply less caffeine per cup than the freshly made beverage was correct.

* * *

RECENTLY TESTED:

Nee Action Peeler-Shredder-Slicer, No. 3 (Ekco Products Co., Chicago 39), sells for 15 cents in F. W. Woolworth and other five-and-dime stores. It is a much more effective gadget for peeling carrots, potatoes, and other root vegetables than the conventional paring knife. The "floating blade" has two edges and is pivoted so that it follows the contours of the vegetable on which it is used. The blade stays sharp for a considerable period of use, and its life may be prolonged by taking care to wash the sand or dirt from the vegetables before peeling them and by drying the blade well before putting it away.

Moguloid (Metallizing Co. of America, 1330 W. Congress St., Chicago) is a purple, opaque, viscous liquid sold in metal cans (list price, $4.90 a quart) with the labeling: "Stops leaks 5 ways--Radiators, valves--hot water heater--boiler-piping--tractors." The estimated composition of this product upon analysis was 44 percent sodium silicate with 56 percent water. According to the directions, which will not be difficult to carry out, 1 quart of Moguloid is to be used per 100 gallons of water in the boiler. (For hot-water heaters, a quart is to be added for each 50 gallons.) The manufacturer has unfortunately omitted from his directions anything that would permit the consumer to arrive at a rough or fair estimate of the amount of water contained in his heating system. Few people would perhaps know whether their system contained 100 or several hundred gallons of water.

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